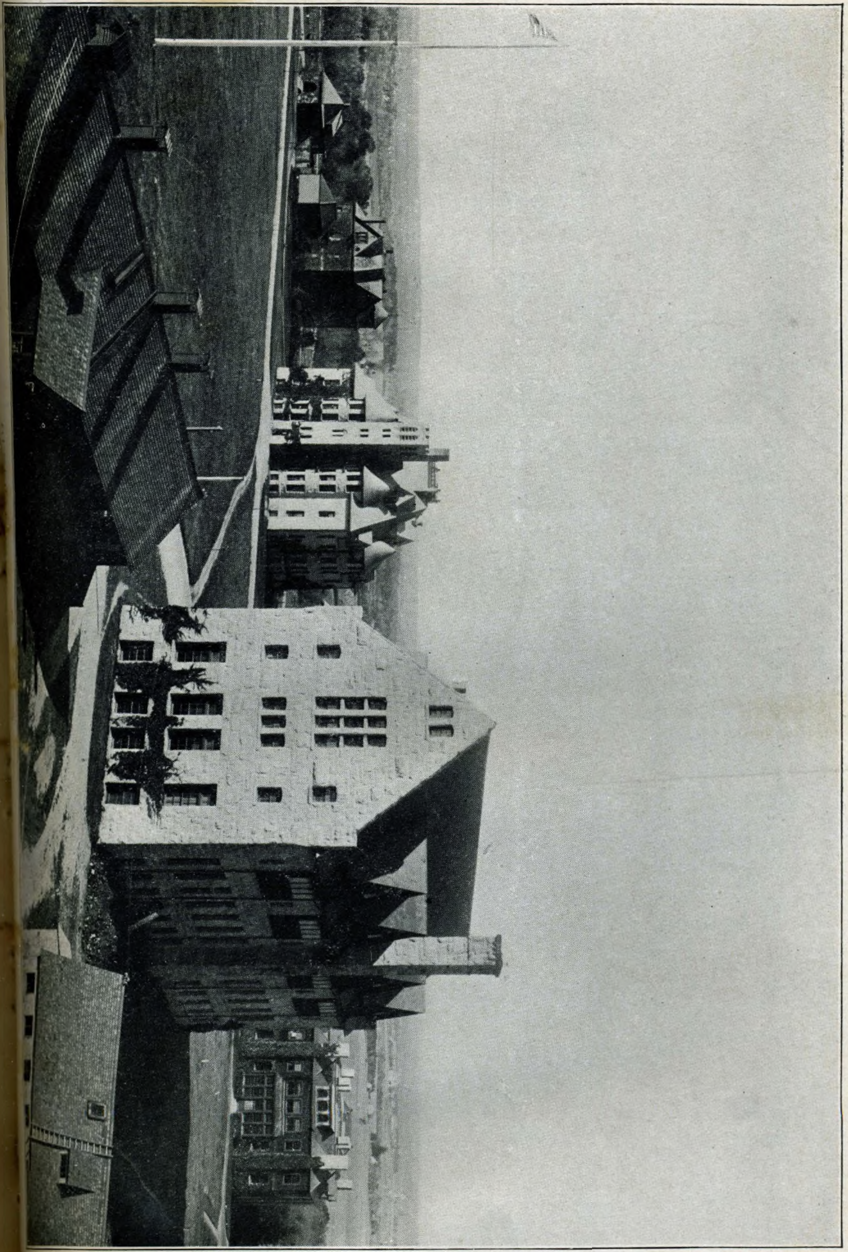

SEVENTEENTH ANNUAL REPORT

OF THE

Corporation, Board of Managers

OF THE

Rhode Island College of Agriculture and Mechanic Arts.

MADE TO THE

General Assembly at its January Session, 1905.

PART III—CATALOGUE.

Part I—General Report for the Year—is printed under separate cover.

Part II—Experiment Station Report—is printed under separate cover.

Providence, R. I.
E. L. Freeman & Sons, Printers to the State,
1905.

Rhode Island College of Agriculture and Mechanic Arts.

Corporation.

Hon. MELVILLE BULL	Newport County.
Hon. C. H. COGGESHALL	Bristol County
Hon. CHARLES DEAN KIMBALL	Providence County.
Hon. THOMAS G. MATHEWSON	Kent County.
Hon. J. V. B. WATSON	Washington County.

Officers of the Corporation.

Hon. CHAS. DEAN KIMBALL, President	P. O., Providence, R. I.
Hon. C. H. COGGESHALL, Clerk	P. O., Bristol, R. I.
Hon. MELVILLE BULL, Treasurer	P. O., Newport, R. I.

Report.

To His Excellency George H. Utter, Governor, and the Honorable General Assembly of the State of Rhode Island and Providence Plantations, at its January Session, 1905:

I have the honor to submit herewith Part Three of the Seventeenth Annual Report of the Board of Managers of the Rhode Island College of Agriculture and Mechanic Arts, as required by law.

CHARLES DEAN KIMBALL,

President of the Board of Managers of the Rhode Island
College of Agriculture and Mechanic Arts.

Faculty and Other Officers.

KENYON LEECH BUTTERFIELD, A. M.,

PRESIDENT

Professor of Political Economy and Rural Sociology,

B. S., Michigan Agricultural College, 1891; Assistant Secretary, Michigan Agricultural College, 1891–1892; Editor, Michigan "Grange Visitor," 1892–1896; Superintendent, Michigan Farmers' Institutes, 1895–1899; Field Agent, Michigan Agricultural College, 1896–1899; Graduate student, University of Michigan, 1900–1902; A. M., University of Michigan, 1902; Instructor in Rural Sociology, University ofMichigan, 1902; Entered upon duties as President, April 1, 1903.

HOMER JAY WHEELER, PH. D.,

Professor of Geology and Agricultural Chemistry,

B. S. Massachusetts Agricultural College, 1883; Assistant Chemist, Massachusetts State Experiment Station, 1883–1887; Graduate student, University of Göttingen, 1887–1889; Ph. D., Göttingen, 1889; Appointed Chemist of Rhode Island Agricultural Experiment Station and Professor of Geology, 1890; Acting President, August 15, 1902–April 1, 1903.

E. JOSEPHINE WATSON, A. M.,

Professor of Languages,

A. B., Smith College, 1882; A. M., Cornell University, 1883; Assistant in English, Smith College, 1883–1887; Student of North European Languages in Göttingen, 1887–1889; Appointed Professor of Languages, September, 1892; Student of French in Tours, summer of 1895.

WILLIAM ELISHA DRAKE, B. S.,

Professor of Mechanical Engineering,

B. S., Polytechnic Institute, Worcester, 1886; Instructor in Physics and Electricity, Worcester Polytechnic Institute, 1887; Instructor in Woodworking at Pratt Institute, Brooklyn, 1887–1893; Appointed Professor of Mechanical Engineering, 1893.

HARRIET LATHROP MERROW, A. M. *

Professor of Botany,

B. S., Wellesley College, 1886; Teacher of Science, Plymouth (Mass.) High School, 1887–1888; Teacher of Science, Harcourt Place, Gambier, O., 1888–1891; Graduate student, University of Michigan, 1891–1892; A. M., Wellesley College, 1893; Graduate assistant, Botanical Laboratory, University of Michigan, 1893–1894; Appointed Professor of Botany, January, 1895.

All salaries of members of the faculty are paid from United States funds.

***Absent for the year.**

FRED WALLACE CARD, M. S.,

Professor of Agriculture,

B. S., Cornell University, 1892; M. S., Cornell University, 1893; Assistant Horticulturist, Cornell University Experiment Station, 1893; Associate Professor of Horticulture, University of Nebraska, 1893–1898; Appointed Professor of Horticulture, 1898.

COOPER CURTICE, D. V. S., M. D.,

Professor of Animal Industry,

B. S., Cornell University, 1881; D. V. S., Columbia Veterinary College, N. Y., 1883; M. D., Columbian University, Washington, D. C., 1887; Assistant Paleozoic Paleontologist, U. S. Geological Survey, 1883–1886; Specialist, Department of Agriculture, Washington, D. C., 1886–1892; Veterinarian, State Board of Health, N. Y., 1892–1894; Tuberculosis Specialist, U. S. Department of Agriculture, Washington, D. C., 1895–1896; Professor of Zoölogy, North Carolina College of Agriculture and Mechanic Arts, 1898; State Veterinarian, North Carolina, 1899; Appointed Professor of Zoölogy, 1900; Professor of Animal Industry, 1902.

LAURENCE ILSLEY HEWES, PH. D.,

Professor of Mathematics and Highway Engineering,

B. S., Dartmouth, 1898; With Engineering Department, Massachusetts Highway Commission, seasons of 1897–1899; Assistant Engineer, G. R. & I. Street Railway, Essex Co., Mass. 1899; Inspector of Macadam Road Construction, Brookline, Mass., 1900; Ph. D., Yale University, 1901; Appointed Professor of Mathematics, 1901.

VIRGIL LOUIS LEIGHTON, PH. D.,

Professor of Chemistry,

A. B., Tufts College, 1894; A. M., Kansas State University, 1895; Ph. D., Tufts College, 1897; Instructor in Organic Chemistry, Tufts College, 1897–1901; Appointed Associate Professor of Chemistry, 1901; Professor, 1903.

JOHN BARLOW, A. M.,

Professor of Zoölogy,

B. S., Middlebury, 1895; A. M., Brown University, 1896; Assistant Biologist, R. I. Experiment Station, 1898; Professor of Biology, Fairmount College, 1898–1901; Appointed Professor of Zoölogy, 1901.

GILBERT TOLMAN, A. M.,

Professor of Physics and Electrical Engineering,

B. M. E., University of Maine, 1896; Instructor in Physics and Physical Geography, Shaw University (Raleigh, N. C.), 1896–1900; A. M., Columbia University (New York City), 1901; Assistant, Department of Physics, Columbia University, 1901–1903; Appointed Professor of Electrical Engineering, 1903.

THOMAS CARROLL RODMAN,

Instructor in Woodwork,

Appointed, 1890.

All salaries of members of the faculty are paid from United States funds.

MABEL DEWITT ELDRED, B. S.,

Instructor in Drawing,

B. S., R. I. College of Agriculture and Mechanic Arts, 1895; Appointed Instructor in Drawing, 1897

MARSHALL HENRY TYLER, B. S.,

Instructor in Surveying and Master of the Preparatory School,

B. S., Amherst College, 1897; Instructor at St. Mark's, 1897–1898; Appointed Master of the Preparatory School, 1898.

ELIZABETH WATSON KENYON, A. M.,

Instructor in Languages and History,

B. S., Mt. Holyoke College, 1896; A. M., Brown University, 1897; Instructor in English and History, Middleborough (Mass.) High School, 1898–1900; Appointed Instructor in Languages and History, 1900.

HOWLAND BURDICK, B. S.,

Instructor in Agriculture and Farm Superintendent,

B. S., R. I. College of Agriculture and Mechanic Arts, 1895; Appointed Assistant in Agriculture, 1897; Appointed Instructor in Agriculture and Farm Superintendent, 1900.

F. PEARLE TILTON,

Instructor in Stenography and Typewriting.

JOSEPHINE OSBORNE BOSTWICK, A. B.,

Instructor in Languages,

A. B., Acadia College, 1901; Assistant in English Branches, Acadia Seminary (Wolfville N. S.), 1902–1903; Appointed Instructor in Languages, 1903.

MAURICE HOWE COOK, PH. B.,

Instructor in Military Science and Tactics

B. P., Brown University, 1897; Captain, 1st R. I. U. S. Vol. Inf. 1898–1899; Appointed Captain and Signal Officer, Brigade of R. I. Militia, 1902; Appointed Instructor in Military Science and Tactics, 1904.

WALTER SHELDON RODMAN, B. S.,

Instructor in Physics and Electrical Engineering,

B. S., R. I. College of Agriculture and Mechanic Arts, 1904; Appointed Instructor in Physics and Electrical Engineering, 1904.

MAURICE ADIN BLAKE, B. S.,

Instructor in Horticulture

B. S., Massachusetts Agricultural College, 1904; Appointed Instructor in Horticulture, 1904.

All salaries of members of the faculty are paid from United States funds

JOHN FRANKLIN KNOWLES, B. S.,

Assistant in Woodwork.

GEORGE BURLEIGH KNIGHT,

Assistant in Ironwork.

LILLIAN MABELLE GEORGE, B. S.,

Assistant in English and Librarian.

ANDREW HOWARD STENE, M. S.

Superintendent of College Extension,

B. S., University of Minnesota, 1897; Principal of Schools, Ashby (Minn.), 1897-1901; M. S., Cornell University, 1902; Appointed Assistant in Horticulture, 1903; Appointed Superintendent of College Extension, April 1, 1904.

LUCY COMINS TUCKER,

Secretary to the President.

SARA LOUISA McCRILLIS,

Matron.

All salaries of members of the faculty are paid from United States funds.

Non-Resident Lecturers and Demonstrators in Short Courses in Agriculture, 1904–1905.

Farm-Practice Course, 1904.

John W. Clark, North Hadley, Mass., APPLE CULTURE.
Dr. H. W. Heaton, Olneyville, R. I., HOW THE FARM KEEPS SCHOOL FOR ME.
William A. Peckham, Little Compton, R. I., POTATO GROWING.

Poultry Course, 1905.

Dr. A. A. Brigham, Marlboro, Mass., PRINCIPLES OF BREEDING. Eight lectures.
I. K. Felch, Natick, Mass., STANDARD POULTRY, JUDGING POULTRY AND JUDGING PRACTICUM. One week.
George K. Frank, Boston, Mass., PICKING AND DRESSING POULTRY. One demonstration.
A. F. Hunter, Roxbury, Mass., EGG PRODUCTION AND MARKETING FOWLS. Six lectures.
C. H. Jenks, Pawtucket, R. I., POULTRY EXPERIENCE. One lecture.
J. Alonzo Jocoy, Wakefield, R. I., BROILERS AND EGG PRODUCTION. Two lectures.
D. J. Lambert, Apponaug, R. I., HOW TO ESTABLISH A BUSINESS, BEST PART OF THE POULTRY BUSINESS, PLYMOUTH ROCKS.
J. H. Robinson, Farm Poultry Publishing Co., Boston, Mass., ADVERTISING. One lecture.
W. D. Rudd, Boston, Mass., THE POULTRY MARKET. One lecture.
Franklin L. Sewell, Quincy, Ill., TYPES OF FOWLS. Crayon illustrations. Two lectures.
E. C. Tefft, Wakefield, R. I., NATURAL BROODING AND REARING OF CHICKS, ASIATIC BREEDS. Six lectures.
Thomas Wright, South Sudbury, Mass., SQUAB RAISING. Three lectures.

CALENDAR.

1904.

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College Calendar.

1904.

Tuesday, September 13	Entrance Examinations at 9 A. M.
Wednesday, September 14	Fall term begins at 1 P. M.
Tuesday, November 8	Election Day.
Wednesday, November 23, 12 M. Tuesday, November 29, 8:30 A. M.	Thanksgiving Recess.
Wednesday, December 21	Fall Term ends at 12 M.

1905.

Tuesday, January 3	Winter Term begins at 1 P. M.
Thursday, January 26	Day of Prayer for Colleges.
Wednesday, February 22	Washington's Birthday.
Tuesday, March 28	Winter Term ends at 12 M.
Tuesday, April 4	Spring Term begins at 1 P. M.
Friday, May 12	Arbor Day.
Tuesday, May 30	Memorial Day.
Sunday, June 11	Baccalaureate Address.
Tuesday, June 13	Commencement Exercises.
Friday, June 16	Entrance Examinations at 9 A. M.
Monday, September 11	Examinations for Entering and Conditioned Students at 1 P. M.
Tuesday, September 12	Examinations for Entering and Conditioned Students at 9 A. M.
Wednesday, September 13	Fall Term begins at 9 A. M.; Registration at 9:30 A. M.
Thursday, September 14	Classes as per Schedule
Tuesday, November 7	Election Day.
Wednesday, November 23, 12 M. Tuesday, November 29, 8:30 A. M.	Thanksgiving Recess.
Wednesday, December 20	Fall Term ends at 4:15 P. M.

1906.

Tuesday, January 2	Examinations at 9 A. M.
Wednesday, January 3	Winter Term begins at 9 A. M.; Registration at 9:30 A. M.
Sunday, February 11	Day of Prayer for Colleges.
Thursday, February 22	Washington's Birthday.
Tuesday, March 27	Winter Term ends at 4:15 P. M.
Tuesday, April 3	Examinations at 9 A. M.
Wednesday, April 4	Spring Term begins at 9 A. M.; Registration at 9:30 A. M.
Friday, May 11	Arbor Day.
Wednesday, May 30	Memorial Day.
Sunday, June 10	Baccalaureate Address.
Tuesday, June 12	Commencement Exercises.
Friday, June 15	Entrance Examinations at 9 A. M.

Experiment-Station Council.

Kenyon L. Butterfield, A. M.	President of the College. *Ex-officio* Member.
H. J. Wheeler, Ph. D.	Director, Chemistry and Agronomy.
Fred W. Card, M. S.	Horticulture.
Cooper Curtice, D. V. S., M. D.	Animal Husbandry.
Burt L. Hartwell, Ph. D.	Associate, Chemistry.
George E. Adams, B. S.	Assistant, Agronomy.
M. A. Blake, B. S.	Assistant, Horticulture.
James W. Kellogg, B. S.	First Assistant, Chemistry.

Other Members of the Station Staff.

Matthew Steel, M. S.	Second Assistant, Chemistry.
Nathaniel Helme	Meteorologist.
Beulah A. Hoitt	Stenographer and Accountant.
Martha Vickery	Stenographer and Librarian.

The publications of the Station will be mailed free on request to anyone in Rhode Island interested in Agriculture. The Station desires the co-operation of the farmers of the state in the work of investigation, and any facts of special interest concerning animal or vegetable growth or disease are solicited. Visitors are always welcome. Railroad station, telegraph, express, and post-office—Kingston, Rhode Island. Long distance telephone, Narragansett Pier exchange.

The College.

History.

In 1863 the state of Rhode Island accepted from the United States Government the land grant script, which gave to each state thirty thousand acres of the public lands for each senator and representative in Congress. The land was to be sold by the states or their agents, the proceeds arising from the sale invested, and the annual income derived therefrom was to be "inviolably appropriated by each state which may take and claim the benefit of this act, to the endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to Agriculture and Mechanic Arts, in such manner as the legislatures of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."

On March 2, 1887, the act known as the Hatch Act was passed, appropriating $15,000 annually to each state, for the purpose of establishing an Agricultural Experiment Station in connection with an Agricultural College or School. Such an Agricultural School was provided for by Chapter 706 of the Public Laws, passed May 23, 1888.

The United States Congress, on August 30, 1890, passed an act known as the New Morrill Bill. This appropriated for the further support of the agricultural and mechanical colleges a sum beginning with $15,000 and continuing, with a yearly increase of $1,000, until the annual appropriation should reach $25,000.

That the school already established might receive the benefit of the act of Congress, the General Assembly amended Chapter 706 of the Public Laws, incorporating the Rhode Island College of Agriculture and Mechanic Arts.

Since September, 1892, the institution has been conducted on a college basis, with an entirely new course of study.

On April 19, 1894, the legislature passed an act authorizing the state treasurer to pay Brown University the sum of $40,000, in consideration of which the university was to turn over to the state the proceeds of the original land grant of 1862 and to withdraw from the United States Supreme Court its suit for the Morrill fund.

On January 27, 1895, the college dormitory was destroyed by fire; but it was replaced by a new granite building, which was ready for use the first of October of the same year, and was called Davis Hall.

At the January session of the legislature, 1897, the institution was given an appropriation for a stone building, one hundred and thirty feet by forty feet, practically three stories high. The basement has three rooms used for instruction in photography and physics, and a large room devoted to electrical engineering. On the second floor are recitation-rooms, chapel, library and reading-room, and young women's study-room. The third floor contains a large hall for drill and gymnasium purposes, above which are bath-rooms and lockers. The hall is also used for assemblies whenever larger audiences are expected than the chapel can accommodate. This building is called Lippitt Hall.

In 1898 an excellent dairy barn was erected. This has given the agricultural department increased facilities for instruction.

On May 8, 1901, the Board of Managers established a school of mines, to be connected with the school of mechanical and electrical engineering. The courses of instruction for the Freshmen and Sophomore years of this school have already been arranged, and are identical with the courses given in the mechanical and electrical engineering school. The courses for the Junior and Senior years will be made ready for publication as soon as sufficient funds are at hand to put them into effect.

Object of the College.

The Rhode Island College of Agriculture and Mechanic Arts is an integral part of the school system of the state. Young men and young women from the high schools are admitted to the privileges of the institution without charge for tuition. The object of the college is to prepare young people to take active part in the agricultural, manufacturing, and commercial development of the state. To this end, technical instruction in the sciences and mechanic arts is the fundamental work of the institution. In order that specialization may not be premature, technical instruction in the various courses is accompanied by instruction in languages, history, political science, and mathematics.

There are seven courses leading to the degree of Bachelor of Science: agriculture, mechanical engineering, electrical engineering, highway engineering, chemistry, biology, and general science. Certain courses are chosen in the Freshman year, others in the Sophomore year; and at the beginning of the Junior year, each student has selected the particular course in which he hopes to take a degree.

The aim of the agricultural course is to fit students not only for practical agriculture but for positions in experiment stations and as teachers. To this end, thorough instruction is given in science and the application of its principles to agriculture, supplemented by a general training in mathematics and languages. The mechanical course is intended for those wishing to become mechanical engineers, as the electrical course is designed to train electrical engineers. The course in highway engineering is designed to equip students as practical working highway engineers. The instruction given is essentially civil engineering adapted to highway construction. The chemical course offers several special lines of work. A student may prepare himself to become a general chemist or a teacher; may specialize in agricultural chemistry with a view to experiment-station work; or may elect industrial chemistry with the idea of obtaining a position in a factory, dyeing establishment, or along other technical lines. In the course in biology the student may take his major work in animal or in plant biology. The course offers special inducements as a preparation for the medical or veterinary school, or training school for nurses. It is likewise adapted to fit one to become a teacher, an assistant in an experiment station, or to take a government position in some biological line of work. The general science course, as the name implies, is not so special as the other courses. It offers a number of electives in history, the modern languages, and art. It is designed for those who wish a good general education in preparation for any line of life-work which they may follow. In the Senior year every student is required to prepare a thesis or report on some subject connected with the work of the course which he has chosen.

Preparatory Course.

Young men and young women who have had no opportunity to receive high-school instruction may enter this department to prepare for the college.

For entrance requirements and course of study, see pages 65–67.

Agricultural High School.

This course, embracing a large amount of practical agricultural instruction, is designed to meet the wants of those who feel that they cannot spend the time necessary for the completion of the full college course in agriculture.

For details regarding this course, see pages 68–71.

Industrial High School.

Students unable to pursue the regular college mechanical engineering course of four years, may take in connection with the preparatory school a two-years' course along one of the following industrial lines: carpentry, machine shop, mechanical draughting, steam engineering.

For details regarding this course, see pages 72–73.

Special Courses.

Whenever possible, students are urged to enter one of the courses leading to a degree. The arrangement of these courses is the result of careful thought and long experience as to the best combination of studies to fit one for the various occupations in which a technical education is required; and it is believed that no such thorough preparation can be obtained from special courses selected by the student.

However, any courses described in this catalogue may be taken by special students of maturity, who can satisfy the professor in charge of the subject chosen that they are prepared to derive benefit from such work.

Special Students in Agriculture.

Students having a working knowledge of the English branches may enter the college without examination and take those subjects which will prove of most direct benefit to them in the work of the farm. One or two years can thus be spent with excellent results. A certificate will be granted at the end of the time, showing the work covered.

Such a course may include studies chosen from the agricultural high-school course as well as those given in the college proper. Among the subjects which might be included are agricultural soils, plant life, drainage, agricultural implements and apparatus, farm fertility and its maintenance, field crops, breeds of farm animals, stock-breeding, feeding of farm animals, dairy-husbandry, poultry-raising, business arithmetic and farm accounts, social problems of the farmer, the principles of horticulture, fruit-growing, vegetable-gardening, landscape-gardening, physiology, entomology, bench-work, wood-turning, and forging. In connection with the above, other subjects for which the student is fitted may be taken. The study of English should generally be included.

A special course in farm practice, continuing six weeks, is offered before the Christmas holidays. A special course in poultry keeping, also continuing six weeks, follows the Christmas vacation. A special course in farm mechanics, given during the twelve weeks of the winter term, includes instruction in carpentry, mechanical drawing, piping (steam and gas), and blacksmithing. Payment of tuition fees for those outside the state and board for the full time is required in advance of students registering in the short special courses. Those interested in these courses will please send for circulars giving full description of them. Address the president.

Requirements for Admission to the College, 1905.

Graduates from high schools, and other schools of similar grade, are admitted without examination, on certificates which are filled out by their principals. The candidate must apply to the college for the certificate, giving the address of his principal who is to certify him. The college will correspond with the principal, furnishing blanks for him to fill. Graduates from high schools are not admitted on diploma. Satisfactory evidence as to good moral character must be presented to the committee on entrance examinations.

Candidates for admission who are not graduates of high schools must in all cases supply a statement of such school records as they may have made, and also a certificate or testimonial of good moral character. The latter may be from some recent teacher, from a pastor, or from other responsible parties.

Candidates not entering the Freshman class on certificate will be examined in arithmetic; algebra; plane geometry; English grammar; advanced English; one year of German, French, or Latin.

In the arithmetic examination especial attention will be paid to fractions, the metric system, simple and compound proportion, and square root; thorough drill in mental arithmetic will be necessary. The applicant should have mastered all of Wentworth's School Algebra as far as page 293, and Wells's Plane Geometry, or their equivalents.

The English requirements are those prescribed for entrance to the New-England colleges. The student will be expected to show familiarity with the works named below. These are divided into two classes. Those marked (*a*) are to be read, and the candidate will be required to show a general knowledge of their subject-matter and of the lives of the authors. Those marked (*b*) are to be thoroughly studied, so that the candidate will be able to pass an examination upon their subject-matter and structure. To be acceptable, the candidate's paper must show a good knowledge of spelling, capitalization, punctuation, sentence and paragraph structure. The books prescribed for 1905 are the following: (*a*) Addison's The Sir Roger de Coverley Papers; Carlyle's Essay on Burns; Coleridge's The Ancient Mariner; Eliot's Silas Marner; Goldsmith's The Vicar of Wakefield; Lowell's The Vision of Sir Launfal; Scott's Ivanhoe; Shakespeare's The Merchant of Venice, and Julius Cæsar; Tennyson's The Princess. (*b*) Burke's Speech on Conciliation with America; Macaulay's Essays on Milton and Addison; Milton's L'Allegro, Il Penseroso, Comus, and Lycidas; Shakespeare's Macbeth. For 1906: (*a*) The Sir Roger de Coverley Papers; Coleridge's The Ancient Mariner; Eliot's Silas Marner; Irving's Life of Goldsmith; Lowell's The Vision of Sir Launfal; Scott's Ivanhoe and the Lady of the Lake; Shakespeare's Macbeth, and The Merchant of Venice; Tennyson's Idyls of the King. (*b*) Burke's Speech on Conciliation with America; Macaulay's Essay on Milton, and Life of Johnson; Milton's L'Allegro, Il Penseroso, Comus, and Lycidas; Shakespeare's Julius Cæsar.

The language requirements cover one year's work in either French, German, or Latin; and Latin is recommended. In French and German this requirement comprises the essentials of grammar, easy reading, and elementary composition. In Latin the candidate must be prepared to study Cæsar. The following text-books are recommended: Chardenal's Complete French Course or Longman's French Grammar (Complete Edition), Super's French Reader or Aldrich and Foster's; the Joynes-Meissner German Grammar, Part I, Collar's Shorter Eysenbach or Lange's German Method for Beginners, Guerber's Märchen und Erzählungen, Part I, or about one hundred and fifty pages of easy reading; Collar and Daniel's First Latin Book, or Lindsay and Rollins's Easy Latin Lessons.

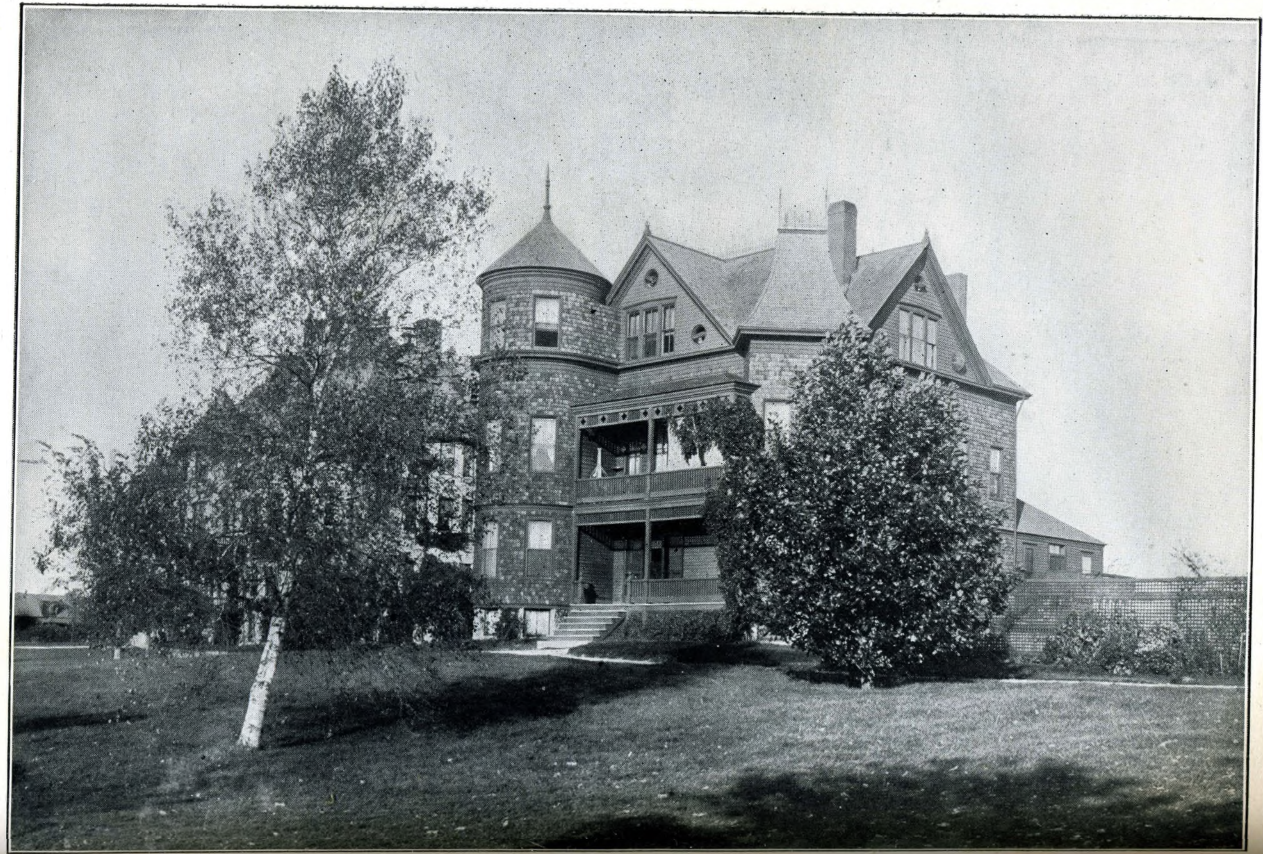
Candidates may enter any of the higher classes for which they are prepared.

Opportunities Offered to Women.

The courses of instruction are open to men and women alike. The women's dormitory will accommodate a limited number of students, and the college will on application find boarding-places for others in private families in town. Special waiting and study-rooms are provided for the women who are day students. Through the efforts of the young women and the generosity of members and friends of the college, a piano has been secured for the women's dormitory, where it is also accessible to the day students.

Expenses for Women.

Room-rent is free in compensation for certain required duties. Fuel and lights are supplied at cost. Rooms are provided with necessary furniture, including mattresses, but no other bedding material. Other expenses are as given below. The women have an opportunity to do their own washing and ironing. A Singer and a Household sewing-machine are at the disposal of all those living at the dormitory.



BOARDING HALL.

*Expenses.

Tuition is free to residents of Rhode Island. To non-residents, tuition is $10.00 a term, or $30.00 a year; this applies only to students entering after July first, 1905.

The regular college expenses are tabulated below. Students should add a sum varying from $10.00 to $25.00 per year for miscellaneous expenses connected with college life.

		Minimum.	Maximum.
Board, $3.50 per week for 36 weeks		$126 00	$126 00
†Room rent in men's dormitory, including heat and light:			
Fall term	$12 00		
Winter term	10 00		
Spring term	8 00—	30 00	30 00
Incidental expenses for all students, $3.00 per term		9 00	9 00
Laboratory fees, $2 to $10 per term		6 00	30 00
Books		15 00	30 00
Laundry, 30c to 60c. per week		10 80	21 60
Uniform for military drill, $15.00		7 50	30 00
		$204 30	$276 60

FEES.—The amount of laboratory fees varies from $1.00 to $10.00 per term, depending upon the laboratory work taken. For each of the following $1.00 per term is charged: botanical and zoölogical laboratories; carpenter shop; wood-turning, forge shop, machine shop, and wood-carving. Fees for physics are as follows: for preparatory students, $1.00 per term; for Freshmen, $1.50; for Sophomores, $2.00. This pays for the material ordinarily used in class work and for the wear and care of tools and apparatus. Any person who breaks apparatus or tools, through carelessness or neglect of instructions, will be charged the cost of the same. The chemical laboratory fee is $3.00 per term for qualitative, quantitative, and organic laboratory work. This covers general chemicals and use of apparatus. Students are required to pay for breakage and for any chemicals they may use in making special preparations for themselves. A fee of $3.00 is also required in the electrical laboratory. A fee of fifty cents will be charged for each examination to make up a

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* For exceptions in expenses for women, see above.

†There will be no refund for room rent except by special arrangement with the president of the college.

condition. Graduates pay the cost of diplomas, $5.00. *No diploma will be issued until the candidate has paid all term bills.*

UNIFORM.—Every able-bodied male student is required to drill and to wear a uniform. The uniform must be paid for immediately on entering the college, when the students are measured for the suits. When worn only on drill and properly cared for, one uniform may last two or more years. The student may, however, wear his uniform all the time.

DAY STUDENTS.—Day students will be charged an incidental fee of $3.00 per term, the same as other students, payable in advance. They may, if they wish, deposit $5.00 in advance at the college store to cover cost of books. The college conveys students daily to and from the railroad station free of charge. Once at the beginning and end of each term, a team conveys trunks to and from the station.

BOARDING STUDENTS.—Boarding students shall deposit $50.00 each term, or give bond for $200.00 for the payment of all bills. No bond will be accepted from any member of the faculty. The price of board for 1905–6 will be $3.50 per week. Students who *leave regularly every week* on Friday afternoon and return Monday morning will pay $2.50 per week. No other reduction on board is made for less than five whole days' absence at one time, and this only when due written notice has been given. No person will be admitted to the dining room until he has secured a dining-room card from the matron. After this card is issued, all charges for board will be made in accordance therewith unless the student has the card changed by the matron. All questions relative to bills for board must come before the matron, and her statement of bills will be accepted by the college office. Arrangement of charges for meals sent to students' rooms for any cause must be made in advance with the matron.

FURNITURE.—*All students in the men's dormitory are required to supply their own furniture and bedding.* The necessary furniture may be obtained at the college when desired. A room may be furnished for from $8.00 to $10.00. Iron bedsteads three feet wide are included under room-rent. The furniture, if properly kept, may be sold, when the student leaves, for one-half to three-fourths the original price.

ROOMS IN THE VILLAGE.—At present the dormitory facilities for young men are taxed beyond their capacity. Students especially desirous of rooming in the dormitory are advised to make their applications at once. It is probable that most of the dormitory rooms will be occupied by the older students. Arrangements have been made for rooms, however, in the village of Kingston, some of these being under college management and others in private houses. In the case of the former, room-rent will vary from 60 cents to $1.00 per week, with stoves and bedsteads furnished, the student to provide other furnishings and fuel himself. Furnished rooms in private houses for students who occupy them throughout the college year range from $1.25 to $2.00 per week.

College Store.—Students will be required to pay cash at the store for all supplies except books. Students having sufficient deposit may have books charged to their account. Other students will have to pay cash for books as well as for supplies.

Damage Fund.—All damages not due to ordinary wear shall be assessed to students as follows:

1. Students at once acknowledging damages and agreeing to pay for same will be assessed actual cost of repair, including labor.
2. Students found guilty of such damages but not acknowledging and settling for the damage will be charged double the cost of repair.
3. Students will be responsible for damages in their own rooms.
4. Damages that are not settled as above may be assessed to all the students or to a group of students, pro rata. Each case and the amount of assessment will be considered on its merits.

Self-Help.

There is a certain amount of labor about the college buildings, on the farm, at the experiment station, and in the offices and laboratories, for which students will be employed whenever it is feasible to do so. Industrious students frequently earn an amount which aids considerably in paying their expenses, a sum varying from $25.00 to $125.00 per year.

In view of the fact, however, that the amount of this work is strictly limited and that it is not the policy of the college to create such work, and, furthermore, because of the increasing number of students and the more frequent applications for student labor, it seems desirable to state the conditions under which this work will hereafter be assigned.

Preference will be given to such students as are in most need of this labor for support while in college. New students desiring labor should bring a statement from parent or guardian, form for which will be furnished, showing to what extent the student must depend upon himself for support. Preference will generally be given to students who have been in attendance for at least a year, and to students who room and board at the college.

Any student accepting labor must maintain a fair record both in deportment and in the classroom. No student will be kept at work who does not give reasonable satisfaction. Any student abusing privileges incidental to his duties as student laborer will be considered inefficient and his work withdrawn. Payment for this service will vary from ten to fifteen cents per hour, according to the grade and difficulty of the work and the experience of the student. In general, students should not expect more than ten cents an hour for the first year. It is a rule of the college that any student desiring to perform more than twenty hours of student labor per week must secure permission from the faculty council. In the future, it may be necessary to limit the amount which any one student may receive for student labor.

Some young people have the impression that the college offers such opportunities for self-help that it is safe to enter with practically no funds, relying solely on money earned while here. In exceptional cases this may be done, but prospective students are strongly advised not to enter until they have at least $100.00 at their disposal. A student who has to make his own way must also plan to work steadily during both the short and long vacations. Occasional vacation work at the college can be furnished to students, but as a rule they should look elsewhere for this class of work.

Regulations of the College.

Conditions.—Section 1.—Any student absenting himself from more than ten per cent. of the total number of recitations in any subject shall not be allowed to take his examination in that subject, except by special vote of the faculty council, but shall be conditioned.

Section 2.—No student shall begin or drop a study without the consent of the committee on schedule and classification or of the master of the preparatory school, the penalty for dropping such subject being a condition.

Section 3.—Examinations of conditioned students shall be held only at the beginning of each term: in September, on Monday at 1 P. M. and Tuesday at 9 A. M. of the week the term opens; in January and April, on the morning of the day before the term opens—at 9 A. M. Any student who, after such examination, shall still have three or more conditions shall be obliged to withdraw from the college. Students still having not more than two conditions may take second examinations at the next regular time, and, failing to pass, shall have no further opportunity to remove such conditions except by special vote of the faculty council.

Section 4.—A fee of fifty cents will be charged for each examination to make up a condition.

Section 5. A student wishing to take an examination to remove a condition must make application for the same, to the instructor in whose subject the condition was received, as soon as possible before the date of the examination.

Section 6.—Students, whether regular or special, shall remove entrance conditions to both the preparatory school and the college within a year from the date of entrance, unless excused by the committee on schedule and classification.

Section 7.—At the opening of a term, any student previously registered in one of the three upper classes of the college who has two conditions shall be classified as a member of the next lower class.

Thesis.—Section 8.—Every student who is a candidate for a degree shall prepare a thesis, and shall submit it to the president of the college at least one month before the time for granting the degree.

Student Publications.—Section 9.—No student shall publish any article in any college, class, or society publication designed for public circulation, or deliver any address on the college campus attended by persons other than students, without the consent of the president or some person appointed by him for granting such permissions.

Athletics.—Section 10.—No student shall represent the college on the athletic field, or in any other organization before the public, who is not regularly registered and in good standing; by good standing is meant conformity to all the rules of the college.

Religious Influences.

This college is a state institution, and, consequently, the widest latitude is given to all creeds and forms of religious belief. Simple chapel exercises are held every school-day morning and are conducted by the president or some other member of the faculty. All students are expected to attend chapel.

A branch of the Intercollegiate Young Men's Christian Association is doing active work among the men students, holding a meeting every Sunday afternoon throughout the year and also a brief noon meeting on some weekday. This association conducts courses in bible study and is taking the lead in endeavoring to establish sound and high ideas of college life.

The Young Women's Christian Union is doing a similar work for the young women.

The village church cordially invites all students to attend its services and, if possible, to join its membership. Every effort is made by the college to minister to the higher life of the students and to bring before them the noblest ideals, without in any way attempting to coerce them to particular beliefs.

Thursday Lectures.

From time to time speakers from abroad, both clergymen and laymen, are invited to address the students upon various subjects. Members of the faculty have also been among the lecturers. The list of speakers for the fall and winter terms was as follows:

1904.
Sept. 15. Pres. Kenyon L. Butterfield, A Word to New Students.
20. Rev. E. Tallmadge Root, Providence, Don't Study the Bible; Read it.
Oct. 6. Hon. George H. Utter, Westerly, Some Debts.
13. Prof. Fred W. Card, Does Agriculture Offer a Satisfactory Occupation for Educated Young Men and Women?
20. Mr. J. D. Towar, Lansing, Michigan, Life in Australia.
27. Hon. Gardiner C. Sims, Providence, The Repair Ship Vulcan.
Nov. 3. Rev. Malcolm Dana, Kingston, The Religion of an Educated Man.
10. Col. Geo. Spencer Merrill, Peace Dale, The Mark of the Man.
17. Miss Mabel D. Eldred, Dutch Painters.
Dec. 1. Gov. L. F. C. Garvin, Providence, The Duty of College Graduates as Citizens.
8. Rev. E. S. Rousmaniere, Providence, The Men We Need.

1905.		
Jan.	5.	College Songs.
	12.	Mr. M. Minassian, Arlington, Mass., The Armenian People.
	19.	Hon. Rowland G. Hazard, Peace Dale, The Relative Benefits to Laboring Men of the Trades Union and Profit-Sharing.
	26.	Rev. C. M. Melden, Providence, Sowing and Reaping.
Feb.	2.	Mass Meeting on Athletics.
	9.	Prof. W. E. Drake, Favorite Hymns.
	16.	Mrs. Benjamin F. Livingston, Providence, Temperance.
	23.	Mass meeting of students for general discussion.
Mar.	2.	Public session of the College Debating Club.
	9.	Rev. Edward F. Sanderson, Providence, Repentance Forward.
	16.	Rev. Frederick Lynch, New York City, The Illumination of Labor.

The Rhode Island College Lecture Association.

Faculty and students, uniting with residents of the vicinity, conduct a winter lecture course, the aim of which is to introduce talented speakers upon subjects both entertaining and instructive. The association may be looked upon as permanent and important factor in college activities. For the season of 1904–1905 the following lecturers were secured:

Dec.	16.	Rev. Scott H. Hershey, Ph. D., The Fellow on Top.
Jan.	27.	Frederick A. Cook, M. D., Peary's Progress Towards the Pole.
Feb.	17.	Frederick W. Bancroft, Scottish Songs and Singers.
Mar.	17.	William Elliott Griffis, D. D., L. H. D., Fun, Fact, and Fancy about the Japanese and Their Country.
April	14.	Col. Thomas Wentworth Higginson, People I Have Met.

The Library.

The library occupies a large room in Lippitt Hall and numbers nearly thirteen thousand volumes. The books are arranged in stacks, to which the students have free access. The Dewey system of classification is used; and a dictionary catalogue gives author, subject, and title. As the library has been from the first intended for reference work, the various departments of instruction have made their selections with the greatest care. Combined with the library is the reading-room, where one hundred of the leading periodicals—of literary, scientific, and general interest—are on file. From time to time these are bound, and prove of great value in research work.

The library is open every week day from 7:30 A. M. to 6:00 P. M., with the exception of a half-hour at noon. The librarian or her representative is in constant attendance to aid any one in search of information. As the college is an institution designed to further the educational interests of Rhode Island, all residents of the state are at liberty to use its library.

Location.

The college campus is one and a half miles from Kingston station, which is at the junction of the main line of the N. Y., N. H., & H. R. R. with the Narragansett Pier branch, thus insuring excellent railroad accommodations. The buildings are on a hill which commands an extended view of the surrounding country—a location both healthful and beautiful.

Departments of Instruction.

The following subjects are offered in the different departments. All studies required of regular students lead to the degree of Bachelor of Science.

Chemistry.

DR. LEIGHTON, DR. WHEELER.

Instruction in chemistry begins with the Freshman year and consists of lectures, recitations, and laboratory work; two hours of laboratory work being counted as equivalent to one period of recitation or lecture work. General chemistry extends through this year: two periods per week being devoted to lectures and recitations, and one period to laboratory work. Qualitative analysis extends through the first and second terms of the Sophomore year, a portion of the time being given to lectures and recitations, but the greater part to practical work in the laboratory.

The above subjects are required of all candidates for a degree, as essential to a liberal education, and are preparatory to the subsequent subjects which are designed for students desiring to make chemistry their profession, either as teachers or practical chemists. The more advanced subjects furnish an excellent preliminary basis for the study of medicine, biology, or agriculture.

The subject of stoichiometry and theoretical chemistry is begun in the general chemistry and continued in the third term of the Sophomore year, much attention being given to the application of the principles to problems. Inorganic preparations occupy three periods per week in the first term of the Junior year. Quantitative analysis is also taken up in this term, and extends throughout the Junior year. Organic chemistry begins in the first term of the Junior year, and extends through five terms. It includes much laboratory work in organic preparations. The subject of theoretical chemistry, begun in general chemistry and continued in the Sophomore year, is taken up in a much more advanced way in the first term of the Senior year, a portion of the time being devoted to laboratory work. The subject also affords opportunity for work in advanced inorganic chemistry, gas analysis, mineralogy, blowpipe analysis, assaying, sanitary chemistry, industrial chemistry, physiological chemistry, agricultural chemistry, toxicology, and textile coloring. In the Senior year, candidates for a degree in the chemical course are required to prepare a thesis on some chemical subject.

Instruction in agricultural chemistry, as applied especially to poultry foods, their use and digestion, is given to students in poultry-raising. Agricultural chemistry, embracing the chemistry of soils, composition of fertilizers, their manufacture and use, and the composition and analysis of fodders and their feeding-values, is offered to agricultural students in the Junior year.

The laboratory is thoroughly equipped with apparatus for the above-mentioned subjects, and opportunity is given for graduate students to continue work in the above lines beyond that required for a degree. A large number of German, French, and English chemical journals are accessible, thus affording excellent opportunity for research work.

Subjects.

I. General Chemistry.—Lectures, recitations, and laboratory work. *Throughout the Freshman year.* Lectures and recitations, 2 *exercises per week;* laboratory work, 1 *exercise of* 2 *hours per week. Required of all candidates for a degree.*

II. Qualitative Analysis.—Basic and acid analysis; analysis of salts. Industrial and natural products. Lectures, recitations, and laboratory work. *Fall and Winter terms, Sophomore year;* 3 *exercises of* 2 *hours each per week. Required of all candidates for a degree.*

III. Inorganic Preparations.—*Fall term, Junior year;* 3 *exercises of* 2 *hours each per week. Required of students in the Chemical course.*

IV. Stoichiometry and Theoretical Chemistry.—Lectures and recitations. *Spring term, Sophomore year;* 3 *exercises per week. Required of all students in Agriculture and Science.*

V. (A) Quantitative Analysis.—Gravimetric and volumetric analysis. Analysis of minerals. *Throughout the Junior year;* 3 *exercises of* 2 *hours each per week. Required of students in the Chemical course.*

V. (B) Quantitative Analysis (Advanced).—Analysis of minerals, ores, alloys, and industrial products. *Throughout the Junior year;* 3 *exercises of* 2 *hours each per week. Required of students in the Chemical course.*

VI. Organic Chemistry.—Lectures, recitations, and laboratory work. *Fall and Winter terms, Junior year:* lectures and recitations, 3 *exercises per week;* laboratory work, 1 *exercise of* 2 *hours per week. Required of students in the Chemical course.*

VII. Organic Preparations.—*Spring term, Junior year;* 3 *exercises of* 2 *hours each per week. Required of students in the Chemical course.*

VIII. Sanitary Chemistry.—*Winter term, Junior year;* 2 *exercises of* 2 *hours each per week. Required of students in the Chemical course.*

IX. Mineralogy and Blowpipe Analysis.—*Winter term, Junior year;* 3 *exercises of* 2 *hours each per week. Required of students in the Chemical course and in Highway Engineering.*

X. Gas Analysis.—*Spring term, Junior year;* 1 *exercise of* 2 *hours per week Required of students in the Chemical Course.*

XI. Assaying.—*Spring term, Junior year;* 1 *exercise of* 2 *hours per week. Required of students in the Chemical course.*

XII. Industrial Chemistry.—Lectures and recitations. *Spring term, Junior year,* and *Fall term, Senior year;* 3 *exercises per week. Required of students in the Chemical course.*

XIII. Organic Chemistry (Advanced).—*Fall and Winter terms, Senior year;* 3 *exercises per week. Required of students in the Chemical course.*

XIV. Theoretical Chemistry (Advanced).—Lectures, recitations, and laboratory work. *Fall term, Senior year:* lectures and recitations, 3 *exercises per week;* laboratory work, 2 *exercises of* 2 *hours each per week. Required of students in the Chemical course.*

XV. Physiological Chemistry and Toxicology.—*Spring term, Senior year;* 3 *exercises of* 2 *hours each per week; elective.*

XVI. Textile Coloring.—*Fall and Winter terms, Senior year;* 3 *exercises per week. Optional for students in the Chemical course with Chemistry XVIII and XIX as alternatives.*

XVII. Agricultural Chemistry.—*Spring term, Senior year;* 3 *exercises per week. Required of students in the Chemical course.*

XVIII. Electro-Chemistry.—*Winter term, Senior year;* 3 *exercises per week. Optional for students in the Chemical course with Chemistry XVI as alternative.*

XIX. Metallurgy.—Lectures and recitations.—*Fall term, Senior year;* 3 *exercises per week. Optional for students in the Chemical course with Chemistry XVI as alternative and required in Fall term, Junior year, of students in Engineering courses.*

XX. (A) Advanced Inorganic Chemistry.—*Winter Term, Senior year;* 3 *exercises per week. Required of students in the Chemical course.*

XX. Thesis Work.—*Throughout the Senior year. Required of students in the Chemical course.*

Physics.

PROFESSOR TOLMAN, MR. W. S. RODMAN.

The instruction in physics is given with reference to the particular needs of the students in the different courses. It begins with the Freshman year and consists of lectures, recitations, and laboratory work.

In the Sophomore year the work is designed more especially for the students in engineering, and is intended to introduce them to many of the problems with which they must deal in engineering work.

Some standard text-book suited to the needs of the students in the different courses is used. This is supplemented by lectures, and problems illustrating the laws of physics.

Subjects.

I. General Physics.—Study of mechanics, hydraulics, pneumatics, and heat, *Fall term;* electricity and magnetism, *Winter term;* sound and light, *Spring term, Freshman year:* 2 *recitations per week;* laboratory work, 1 *exercise per week. Required of all students in Agriculture and Science courses.*

II. General Physics.—*Throughout the year;* 4 *exercises per week. Required of Sophomores in Engineering courses.*

Mineralogy and Geology.

DR. LEIGHTON, DR. WHEELER.

General Mineralogy.—General mineralogy is taught in the winter term of the Junior year, and consists of three exercises per week. A short course dealing with the elements of crystallography is given, together with the physical and chemical characteristics of minerals, especially of the rock-making minerals composing our soils. Laboratory work in blowpipe analysis and physical determination of minerals follows the crystallography.

A CORNER OF THE FARM.

Geology for Agricultural and Highway-Engineering Students.—Under this subject historical geology is considered in outline, attention being given, also, to those phases of dynamical and structural geology which are particularly important. Special attention is given to rock weathering and soil formation, and to those characteristics of rocks which are of chief importance in connection with road construction.

Subjects.

III. Mineralogy.—See Chemistry IX. Dr. Leighton.

IV. Geology for Agricultural and Highway-Engineering students.—Lectures and recitations. *Spring term, Junior year;* 3 *exercises per week. Elective.* Dr. Wheeler.

Botany.

PROFESSOR MERROW.

The required work in botany for students in agriculture and the science courses begins in the fall term of the Sophomore year with the biology of plants, which continues three terms. The aim of this subject is to give the student a knowledge of plant life, by the study of the plants themselves in the laboratory and in the field. Attention is given to representatives of the vegetable kingdom from the lowest to the highest. Some time is given to the determination of species, but emphasis is placed on the structure of the plant, its activities, and its relation to its environment. In short, the subject is adapted to the needs of the general student who desires a knowledge of the principles of biology as illustrated by our common plants, and also furnishes a good foundation to the student who is to follow more advanced work in botany, agriculture, horticulture, or medicine. Elementary agricultural botany is given in the agricultural high school, and is described with the other subjects of that school. Students wishing to emphasize botany in their choice of studies are given every opportunity to follow lines of work best suited to their needs. Excellent advantages are offered to those who wish to elect work in plant pathology. The laboratory keeps in store a supply of dry and alcoholic material for the study of parasitic fungi, and collecting fields for fresh material are near at hand. Each student is supplied with a compound microscope, a dissecting microscope, re-agents, and small instruments. The laboratory is equipped with apparatus for simple physiological experiments, a microtome, paraffin bath, stains, thirty Brendel models, Briosi and Cavara's Parasitic Fungi of Cultivated Plants, Ellis's Fungi Columbiani, Seymour and Earle's Economic Fungi, Arthur and Holway's Uredineæ, and an herbarium of native plants. A good working library, including several American and foreign periodicals, is an important part of the equipment of the laboratory.

Subjects.

I. Biology of Plants.—Lower plants are studied the first half-year, seed plants the second half-year. Laboratory, reading and lectures. *Throughout the Sophomore year;* 3 *exercises of* 2 *hours each per week. Required of students in the Science courses.*

II. Pathology.—A study of the nature and the causes of plant diseases and the remedies for them. Laboratory, field work, reading and lectures. *Elective, open to students who have taken Botany I. Hours arranged with instructor.*

III. Histology.—Laboratory, reading, and lectures. The laboratory work includes methods of imbedding, sectioning, staining, and mounting. *Elective; open to students who have taken Botany I. Hours arranged with instructor.*

IV. A study of the Spring Flora of Kingston, considered from an ecological and systematic standpoint. Special attention is given to the rose family. The major part of the time may be given to herbaceous forms or to trees and shrubs. Field and laboratory. *Spring term;* 3 *exercises per week. Elective; open to students who have taken Botany I.*

V. A study of the Fall Flora of Kingston, considered from an ecological and systematic standpoint. Special attention may be given to weed-plants, grasses, and the clover family, or the student may give his attention chiefly to trees and shrubs. Field and laboratory. *Fall term;* 3 *exercises per week. Elective; open to students who have taken Botany I.*

VI. Plant-Life.—A study of the plant and its environment. Nutrition, growth, reproduction, plant diseases and their remedies are treated. Lectures and reading, illustrated by models, charts, demonstrations, and field and laboratory work. *Given six weeks in the Winter school of Farm Practice.*

By consulting the instructor other arrangements may sometimes be made for those desiring to elect work in botany.

Zoölogy.

PROFESSOR BARLOW.

The work in zoölogy begins with a general subject running through the year. Three periods, each two hours long, are given to this work. Beginning with the lowest and most simple forms of life, type forms from each important group are studied. Neatness and precision in dissection and accuracy in drawing are emphasized. During the fall term protozoans, coelenterates and echinoderms are studied. Then follows a study of worms, arthropods and mollusks, and in the spring term the vertebrates are taken up. This general subject is considered essential to an understanding of the more practical studies which follow in the course, and is required of all Sophomores in the science courses.

Electives are offered in anatomy, physiology, embryology, histology, and economic entomology. Subjects V (A) and III (B) are specially designed to meet the needs of those who are preparing to study medicine or veterinary science. Subject VII (A) is designed to be of value to those who are to take up any of the various lines of agriculture and animal industry.

Instruction is largely by laboratory work and lectures. Textbooks are used, and much reference work in standard texts and current periodicals is required.

Especial facilities for the study of the smaller farm animals are afforded by the college farm and experiment station poultry-yards. The experiments now in progress in the "hothouse" plans of raising poultry give unequalled advantages for study in this line. The rapid reproduction of poultry, rabbits, etc., makes them ideal material in studying living processes.

The marine fauna, occurring at a short distance from the college, in the ocean, Narragansett bay and numerous estuaries; the freshwater fauna, occurring in the springs, ponds, and streams near by; together with an abundant land fauna of the smaller types of mammals, birds, reptiles, amphibians, fish and insects, make the locality especially favorable for field work.

For indoor study the department is well equipped with Leuckart's charts; Zeigler's and other models; manikins elucidating the anatomy of man, horse, and fowl; skeletons of all the domestic animals; a series of the principal vertebrated forms, each type being represented by skeleton and mounted skin. The collection includes many rare and remarkable forms from distant parts of the earth, such as the lung fishes, Hatteria, the wingless birds of New Zealand, and many Australian forms. The invertebrate series is represented in a similar way. The collection of Rhode Island birds is practically complete, and most of the reptile and batrachian species of the state are represented.

The laboratory is provided with microtome, microscopes, and all necessary apparatus for microscopic work. In the library is the best literature upon the subject, and a number of the leading current zoölogical journals are available at the experiment station or by special arrangement.

Subjects.

I. (B) Animal Biology.—A study of selected types of the leading animal phyla, beginning with the low forms and advancing systematically to the vertebrates. *Throughout the Sophomore year; 3 exercises of 2 hours each per week. Required in the Science courses.*

III. (B) Physiology.—Comparative physiology of mammals. *Winter and Spring terms; 2 recitations and 1 laboratory exercise of 2 hours per week. Open to students who have taken V (A) and Chemistry VI.*

IV. (A) Embryology.—The development of the chick and frog. *Spring term; 3 exercises of 2 hours each per week. Elective; open to students who have taken Zoölogy VI.*

V. (A) Vertebrate Anatomy.—Detailed study of the cat. *Fall term; 3 exercises of 2 hours each per week. Elective.*

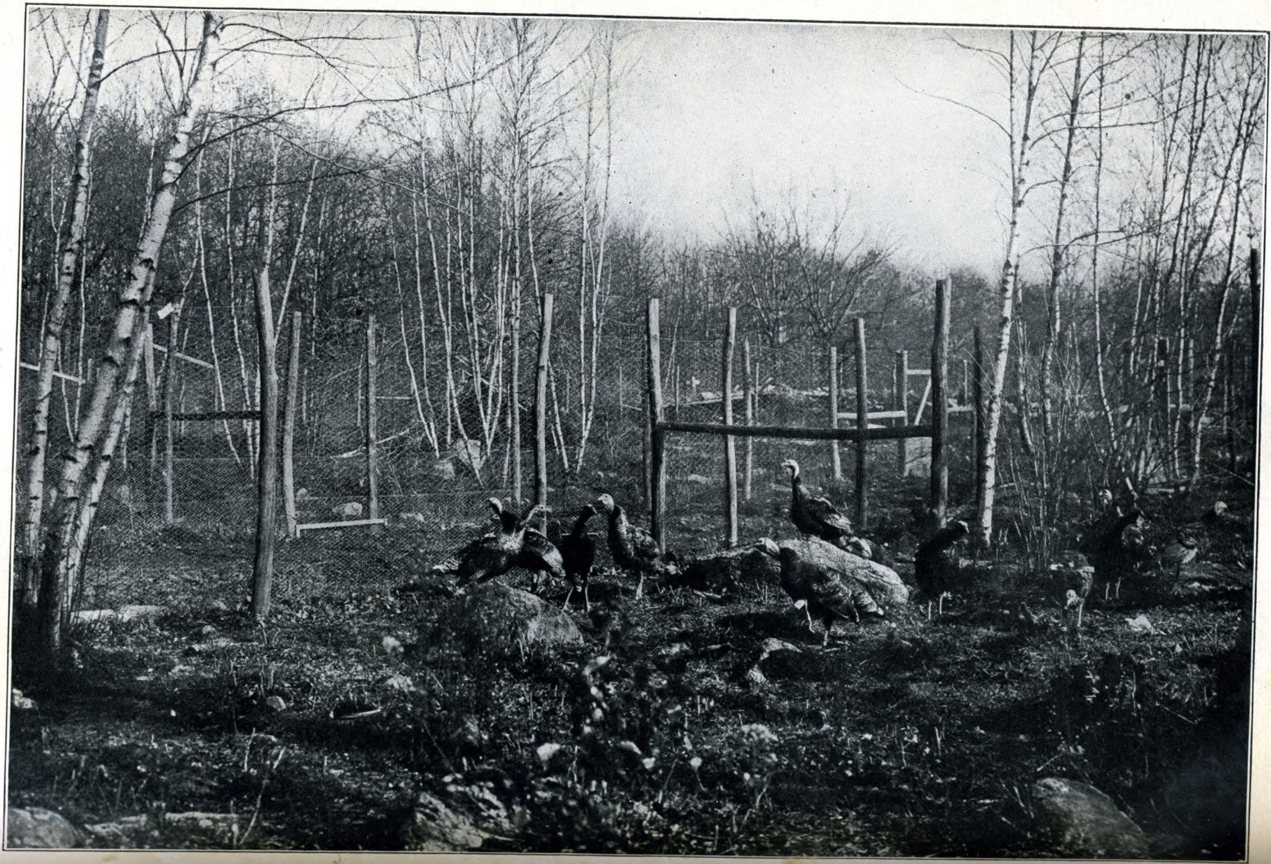
VI. Normal Histology and Histological Methods.—*Winter term; 3 exercises of 2 hours each per week. Elective; open to students who have taken course I (B).*

VII. (A) Entomology.—Lectures, laboratory and field work. Special attention is given to forms of economic importance. *Throughout the year; 3 exercises of 2 hours each per week. Elective.*

VIII. (A) More advanced work in special topics may be taken up by special arrangement with the instructor.

Psychology.

I. Elementary Course.—Lectures, recitations, simple laboratory experiments. *Winter and Spring terms; 3 exercises per week. Elective for Juniors and Seniors.*



TURKEYS IN EXPERIMENT YARDS.

Agriculture.

PROFESSOR CARD, DR. CURTICE, DR. WHEELER, MR. TYLER, MR. BURDICK.

The science of agriculture rests upon many sciences. Thorough training in agriculture therefore presupposes a foundation knowledge of these sciences. This foundation must be obtained in other departments of the institution.

The object of an agricultural education is to emphasize the why of farming rather than the how. In other words, it is the special province of an agricultural college to deal with the principles which underlie the various operations of the farm rather than with the methods of performing those operations. In doing this it does not underestimate the importance of knowing how to do farm work. It recognizes fully that there can be no complete success without such knowledge, but it believes that the average student can better learn these things on a well-managed, up-to-date farm than at an agricultural college. He can there gain experience and earn wages at the same time. At college he is on expense and earning nothing. Some practical operations can be better learned at college than elsewhere. These things the college will try to teach. It will not try to teach a man to become expert in hoeing corn or in digging potatoes. To teach such things would mean that the student must miss many things of value which the college can teach and the farm cannot.

A college course in agriculture should teach a man those things which will enable him to make a success of his profession. It should do more; it should give him an educational training which will enable him to become a leader in the affairs of men. The world needs farmers; it needs men among farmers more. It is calling for such men. It offers them a liberal share of its rewards. Positions are waiting, opportunities are opening, possibilities exist on every farm. To train men to fill these positions, to embrace these opportunities, to see the possibilities, is the object of the course in agriculture.

SPECIAL COURSE IN FARM-PRACTICE.—A special course in farm-practice was inaugurated in the fall of 1901, occupying six weeks immediately preceding the Christmas holidays. The design of this course is to give clear-cut, practical instruction in agriculture.

It aims to emphasize a study of the soil and the plant as constituting the foundation of successful farm practice.

The following subjects are taken up during the course: soils and fertilizers, how soils are made, kinds of soil, the purchase, mixing, and use of commercial fertilizers; soil management, effects and methods of tillage, humus supply, moisture conservation, rotations, and cover crops; field crops; fruit-growing; vegetable-gardening; the feeding and breeding of live stock; agricultural physics, mechanics as applied to farm implements, soil physics, drainage; the plant, its method of life and its enemies; insect life, enemies of the farm and garden; wood-work; iron-work; farm business. Practical men from outside the college aid in the instruction.

The expenses are kept as low as possible. A certificate of attendance is given at the completion of the course. No entrance examination is required.

Special Course in Poultry-Keeping.—A special course in poultry-keeping continues for six weeks immediately following the Christmas vacation. The aim of the course is to give pointed, practical instruction in the science and art of poultry-keeping and to present the latest and best methods in practice and management. This, the pioneer course in poultry-keeping, has been in progress for the past seven years and has proved uniformly successful.

Theoretical or practical teaching is given in the following subjects: zoölogy, including anatomy, physiology and embryology; breeds of fowls and their origin; principles of breeding, mating, care and management; incubation and brooding; chemistry of foods; feeding; egg and flesh production; caponizing; fattening; killing, dressing and marketing; the prevention of diseases; poultry plants—including location, drainage, buildings, drawing of plans, specifications, estimates, construction, ventilation, and heating; records and accounts; crops raised for poultry or as an adjunct to the business.

The practical work includes individual practice in artificial incubation and brooding, and in the preparation of fowls for market. Frequent excursions are made to typical poultry plants for a study of their stock and practical management. An annual trip is made to either the Boston or New York poultry show. One of the strong features of the course consists in the fact that the students are brought in contact with a large number of practical poultrymen, who come to the college annually to assist in the instruction.

Early enrollment is necessary for admission to this course, as the number of applications frequently exceeds the number of students that can be accommodated. No entrance examinations are required. Certificates of attendance are given to deserving students at the close of the course.

Subjects.

I. Soils and Fertilizers.—Origin and formation of soil; chemical properties; influence of chemical constituents upon the physical conditions and biology of the soil. Farm manures; artificial manures—composition, precautions and economy in using, influence upon the soil and plants; action of soils and of plants upon manures; formulas for farm crops, with calculations of formulas. *Spring term, Junior year*; 3 *exercises per week. Required of Agricultural students.* Dr. Wheeler.

I. (A) The Soil.—Constituents; elements of fertility; texture; moisture; living organisms; under-draining; tillage; humus; temperature. This course treats of the physical characteristics of the soil as distinct from the chemical. *Fall term, Junior year;* 2 *class exercises and one laboratory period per week. Required of Agricultural students.* Professor Card.

II. Farm Crops.—Needs of the plant; maintenance of fertility and humus; rotations; pastures; meadows; grains; grasses; clovers; forage plants and roots. *Winter term, Junior year;* 3 *exercises per week. Required of Agricultural students.* Professor Card.

III. Farm Equipment.—Selection and equipment of farms; buildings, fences, roads, water supply, farm power, field machinery, and appliances. *Spring term;* 3 *exercises per week. Elective.* Professor Card and Mr. Burdick.

IV. Farm Management.—Farm capital, fixed and circulating; labor, manual and team; choice of a farm; ownership or rental; farm balance; implements and equipment; systems of farming; marketing problems; advertising; records and accounts; legal questions; coöperation; specific types of farming. *Winter term;* 2 *exercises per week. Elective.* Professor Card.

V. Agricultural Economics.—See Economics and Rural Sociology II.

VI. Farm Surveying and Drainage.—Mapping of fields; location of drains; leveling and construction of farm drains. *Fall term;* 2 *exercises per week. Elective.* Mr. Tyler.

VII. Farm Animals.—A study of the types, breeds, and care of different farm animals. *Fall term;* 3 *exercises per week. Elective.* Dr. Curtice.

VIII. Farm Animals.—Principles of feeding, nutrition, assimilation, and excrementation; selection, composition, and digestibility of food-stuffs; feeding standards and compounding of rations; practice in the preparation of foods and methods of feeding; principles of hygiene and management. *Winter term; 3 exercises per week. Elective.* Dr. Curtice.

VIII. (A) Farm Animals.—Principles governing their choice and breeding. *Spring term; 3 exercises per week. Elective.* Dr. Curtice.

Poultry-Keeping.—Under subjects VII, VIII, and VIII (A) the student may substitute poultry-keeping for farm animals. The poultry course will essentially parallel that of Farm Animals, but be modified to suit its requirements. It is expected that students taking the poultry-course work will spend a certain portion of the Fall and Spring terms in incubation and brooding.

IX. Dairy Husbandry.—Care and management of dairy cattle; buildings and equipment; milk production, composition, management, aëration, pasteurization, sterilization, testing, preservation, transportation; creaming. *Spring term; 3 exercises per week. Elective.* Dr. Curtice.

XI. Agricultural Experimentation.—Objects, methods, and results of agricultural experimentation; precautionary measures; sources of error; interpretation of results. *Spring term; 2 exercises per week. Elective.* Dr. Wheeler.

XII. Agricultural Literature.—Seminary courses in the literature of special subjects. *By arrangement. Elective.*

XIII. Original Investigations.—For advanced students only. *By arrangement. Elective.*

XIV. Rural Sociology.—See Economics and Rural Sociology III.

XV. Handicraft Courses.—For students who wish training in the practical operations of agriculture, handicraft courses are open in the care of livestock, poultry-culture, fruit-growing, vegetable-gardening, use and care of farm machinery, etc. *By arrangement. Not to count toward a degree.*

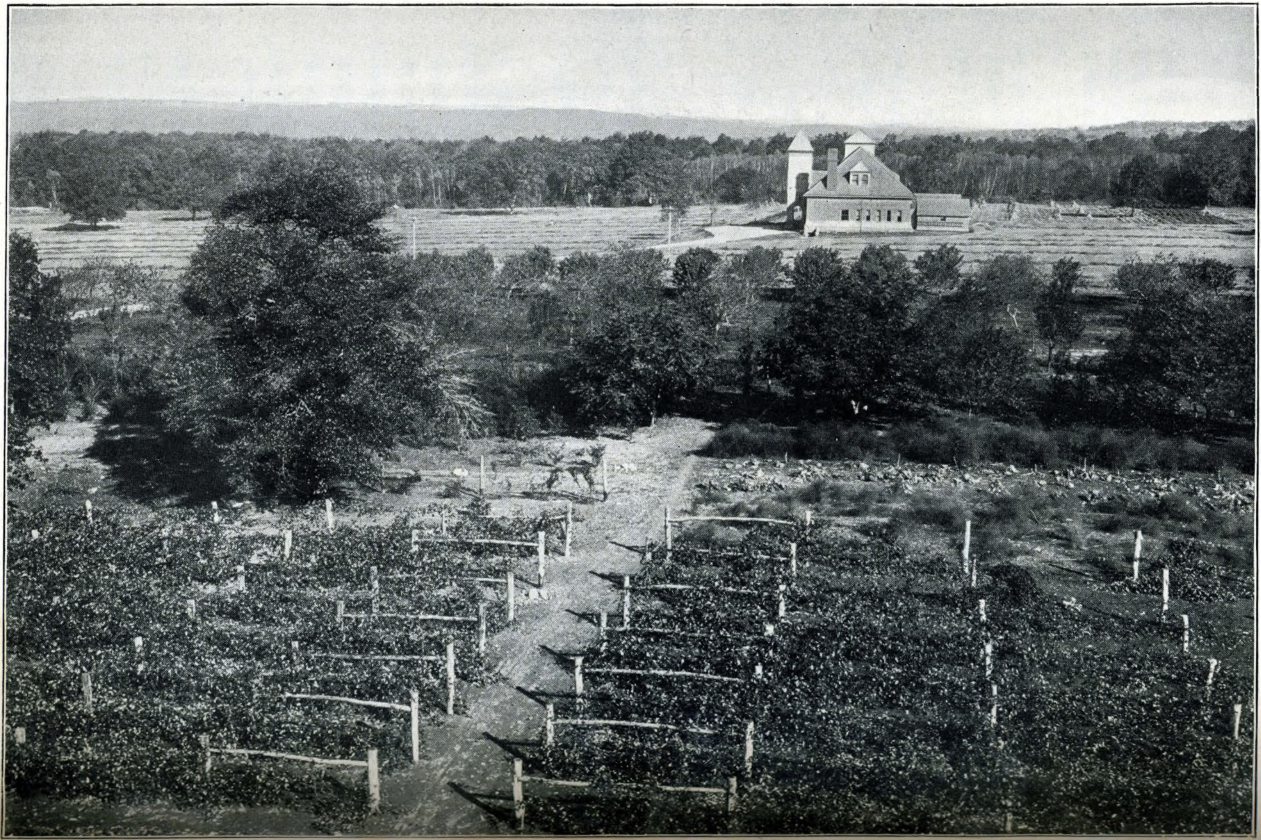
Horticulture.

PROFESSOR CARD, MR. BLAKE.

Work in horticulture is designed for students from all courses. It is felt that some knowledge of the subject may very properly form a part of every well-rounded education.

In the introductory subject the aim is to discuss principles of general importance to all who have to deal with orchard or garden crops. The subjects of pomology and vegetable-gardening are designed to give practical instruction in the growing of fruits and vegetables.

Landscape-gardening is especially recommended to those who seek to appreciate the beautiful in nature or in art. Its aim is to



HORTICULTURAL DEPARTMENT.

apply the principles of beauty, as evinced in the work of nature, to the art of embellishing grounds.

Forestry touches problems of import to every citizen interested in the public welfare. Owing to the intimate relation between forests and waterflow, the subject is often of more vital importance to the manufacturer than to the farmer.

The subject of plant-breeding appeals chiefly to those interested in the broader problems of biological development and relationship. A careful study of the amelioration and development of plants under culture throws light upon many of the general problems of evolution which are of interest to all thinking students.

The subjects of reading and original investigation are designed chiefly for students who wish to make a specialty of horticulture.

Subjects.

I. Principles of horticulture.—A discussion of fundamental principles underlying horticultural operations in orchard, garden, and greenhouse. *Fall term; 2 recitations and 1 laboratory period per week. Elective.* Mr. Blake.

II. Pomology.—Lectures and supplementary reading. Designed to give practical instruction in fruit-growing. *Winter term; 3 exercises per week. Elective.* Mr. Blake.

III. Vegetable-Gardening.—Methods of growing garden vegetables in the open ground and under glass. *Spring term; 3 exercises per week. Elective.* Mr. Blake.

IV. Landscape-Gardening.—The principles underlying landscape-gardening as a fine art, with discussion of the ornamentation of home grounds, school grounds, cemeteries, parks, highways, and other public grounds. Lectures and supplementary reading. *Fall term; 3 exercises per week. Elective.* Professor Card.

V. Forestry.—General importance of forests, their influence on climate and water supply, methods of regeneration, and systems of forest management. Lectures and supplementary reading. *Spring term, Junior year; 3 exercises per week. Elective.* Professor Card.

VI. Plant-Breeding.—A discussion of the development of plants under culture, with especial reference to problems of heredity, environment, variation, selection, and evolution. Lectures and supplementary reading. Open to students who have had Botany I. *Winter term; 2 exercises per week. Elective.* Professor Card.

VII. Horticultural Literature.—A seminary course designed to give familiarity with horticultural writings, ancient and modern. *By arrangement. Elective.*

VIII. Original Investigation.—For advanced students only.—*By arrangement. Elective.*

Languages.

The subjects grouped under this head are English, German, French, and Latin. For entrance requirements, see pages 18 and 19.

In all the college courses leading to a degree, three years of English and two years of foreign language study are required.

The aim of the department must necessarily vary with the language taught. In English the student is expected to gain increased facility in the correct use of his mother tongue as well as a large acquaintance with its best literature. In French and German, while practice in speaking and writing is constant, special emphasis is put upon a study of some of the literary masterpieces; and incidentally a good foundation is laid for the easy reading of scientific texts. The required year's work in Latin is looked upon as furnishing a valuable preparation for later language study and as being helpful in understanding scientific terms.

The library is a most important factor in the work of the department, as the English language and literature are represented in it by about one thousand carefully selected volumes and the French and German literatures by about six hundred.

Subjects.

ENGLISH.

PROFESSOR WATSON, MISS BOSTWICK.

*II. Rhetoric.—Text-book study and practical application of rhetorical principles in themes and exercises. *Throughout the Freshman year;* 2 *exercises per week. Required of all candidates for a degree.*

III. Critical study of certain prose masterpieces by Carlyle, Emerson, Lamb, Holmes, Thoreau, Burroughs, and Warner; with essays and various short papers. *Throughout the Sophomore year;* 2 *exercises per week. Required of all candidates for a degree.*

IV. General English Literature.—Largely a study of Chaucer, Shakespeare, Milton, Wordsworth, Tennyson, Browning, and their times. Essays and collateral reading required. Students are encouraged to special investigation along literary and historical lines. *Throughout the Junior year;* 2 *exercises per week. Required of all candidates for a degree.*

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*Course I, Elementary English, is given in the preparatory school.

V. Special English Literature.—Study of special periods and authors. *Throughout the year;* 3 *exercises per week. Elective; open to students who have taken courses I–IV or their equivalent.*

VI. Special Work in Themes.—*Throughout the year. Elective; open to students who have taken courses I–IV or their equivalent.*

GERMAN.

PROFESSOR WATSON.

I. Elementary German.—Grammar, dictation, conversation, reading of easy prose and poetry. *Throughout the year;* 4 *exercises per week. Required of all candidates for a degree who do not offer French.*

II. Reading of intermediate texts, composition, conversation. *Fall term, Sophomore year;* 3 *exercises per week. Open to students who have taken subject I or its equivalent, and required of all candidates for a degree who do not offer French.*

III. German Classics.—Gœthe, Schiller, Lessing. *Winter and Spring terms, Sophomore year;* 3 *exercises per week. Open to students who have taken subjects I and II or their equivalent, and required of all candidates for a degree who do not offer French.*

IV. (A) German Prose.—Freytag, Von Scheffel, Dahn. *Throughout the year;* 3 *exercises per week. Elective; open to students who have taken subjects I–III or their equivalent.*

VII. Scientific German.—Special work assigned by different professors. *Elective; open to those who have taken subjects I–III or their equivalent.*

FRENCH.

PROFESSOR WATSON, MISS BOSTWICK.

I. Elementary French.—Grammar, dictation, conversation, reading of easy prose and poetry. *Throughout the year;* 4 *exercises per week. Required of all Freshmen not taking German or Latin and not offering French for admission.*

II. Reading of intermediate texts, composition, conversation.—*Throughout the Sophomore year;* 3 *exercises per week. Required of all candidates for a degree who do not offer German.*

III. French Classics.—Corneille, Racine, Molière. *Throughout the year;* 3 *exercises per week. Elective; open to students who have taken subjects I and II.*

IV. (A) French Prose.—Hugo, Sand, Balzac, Loti. *Throughout the year;* 3 *exercises per week. Elective; open to those who have taken subjects I–III or their equivalent.*

VI. Scientific French.—Special work assigned by different professors. *Elective; open to those who have taken subjects I and II or their equivalent.*

LATIN.

MISS BOSTWICK.

*II. Cæsar or selections from various Latin authors. *Elective. Throughout the year;* 3 *exercises per week.*

History.

MISS KENYON, MISS BOSTWICK.

The aim of the work in history is to present and interpret the political, social, constitutional, and diplomatic development of the leading countries of Europe and America, and to foster scientific habits of study. The library contains more than a thousand volumes on history, and local records have been used for research work.

Subjects.

†II. American History.—Lectures, recitations, reports. The origin and early development of American institutions; the colonial policy of European states; intercolonial wars; the Revolution; the establishment, the development, and operation of the Constitution of the United States; political parties; the Civil War and Reconstruction. *Throughout the year;* 3 *exercises per week. Elective for Juniors and Seniors.* Miss Kenyon.

IV. European History.—Lectures, recitations, and reports. The sources of mediæval and modern civilization; the empire of Charles the Great; the feudal system; the crusades; the national growth of France, Germany, and England; the Renaissance; the Reformation, the French monarchy in the seventeenth century, the system of the balance of power, the Puritan Movement, the Revolution of 1688, the rise of Prussia, the French Revolution and a general survey of European history since 1815. *Throughout the year;* 3 *exercises per week. Elective for Juniors and Seniors.* Miss Kenyon.

VII. Hebrew History and Literature.—*Throughout the year;* 1 *exercise per week. Elective.* Miss Kenyon and Miss Bostwick.

V. Government.—Lectures, recitations, reports. *Fall term, Senior year;* 3 *exercises per week. Required of all candidates for a degree.* Miss Kenyon.

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*Elementary Latin is given in the preparatory course.

†Course I, General History, is given in the preparatory course

Economics and Rural Sociology.

PRESIDENT BUTTERFIELD.

Subjects.

I. Political Economy.—Text-book, supplemented by lectures, readings, and essays. The first term is devoted to the general principles of the subject; second term, to consideration of present-day problems. *Winter and Spring terms, Senior year; 3 exercises per week. Required of all candidates for a degree.* President Butterfield.

II. Agricultural Economics.—The study of agriculture as an industry, from the point of view of political economy. Includes a study of the agricultural market; transportation of agricultural products; agricultural labor; farm ownership and tenancy; mortgages, etc. *Spring term; 2 exercises per week. Elective* President Butterfield.

III. Rural Sociology.—Movements of the farm population—causes and results; general social conditions of farmers, such as illiteracy, health, crime, etc.; personal and social traits developed by rural life; means of communication in rural communities; the rural school; agricultural education; the country church; farmers' organizations, federation of rural social forces. *Fall term; 2 exercises per week. Elective.* President Butterfield.

Mathematics.

DR. HEWES, MR. W. S. RODMAN.

All students study higher algebra, solid geometry, and plane trigonometry, in their Freshman year. These subjects offer good mental discipline and form the basis of future work in engineering. They include as applications the solution of numerical equations and problems involving logarithms, the measurement of volumes and areas, and solution of triangles.

Those who elect engineering courses study analytical geometry during the first two terms of the Sophomore year. In the spring term calculus is begun and is completed in the winter term of the Junior year. The remainder of this winter term and the spring term during the Junior year are occupied with the study of theoretical mechanics.

Throughout the work emphasis is laid on the direct application of the subjects to the actual problems that arise in the engineering courses of which they form a part. The student is made to feel the need of advanced methods of treatment simultaneously with the presentation of that treatment. It is the aim of the work principally to develop engineers with useful mathematical training.

Subjects.

*IV. Higher Algebra.—Permutations and combinations, applications of the principle of mathematical induction, theory and use of logarithms (not involving infinite series), determinants, elements of the theory of equations. *Winter term, Freshman year;* 4 *exercises per week. Required of all candidates for a degree.*

V. Plane Trigonometry.—Study of the six functions as ratios; proofs of the principal formulas; in particular the sine, cosine, and tangent of A+B and 2A. The use of logarithms and the solution of triangles with applications. *Spring term, Freshman year;* 4 *exercises per week. Required of all candidates for a degree.*

VI. Solid Geometry (Phillips and Fisher).—The usual theorems relating to lines and planes in space. Calculation of cubic contents of polyhedra, the cone, sphere, and cylinder. *Fall term, Freshman year;* 3 *exercises per week. Required of all candidates for a degree.*

VII. Analytical Geometry.—The various co-ordinate systems and their relations. Derivations of the equations of the line, circle, and conics. Study of loci and methods of plotting. Detailed analysis of the equations of second degree in two variables. *Fall term, Sophomore year;* 3 *exercises per week. Required of students in the Engineering courses.*

VII. (A) Solid Analytical Geometry.—Co-ordinate systems in space and study of the line, plane, and quadric surfaces. Loci in space. *Winter term, Sophomore year;* 3 *exercises per week. Required of students in the Engineering courses.*

VIII. Calculus.—The differentiation of the ordinary functions and applications to geometry and engineering. Taylor's and Maclaurin's theorems, partial differentiation, maxima and minima of functions of one or more variables. Problems in physics and allied subjects. Methods of integration, theory of planimeter, applications to practical problems of geometry and mechanics. *Spring term, Sophomore year, and Fall term, Junior year;* 3 *exercises per week: Winter term;* 4 *exercises per week. Required of students in Engineering courses.*

IX. Theoretical Mechanics.—The laws of motion, forces acting at a point, and in a plane, parallel forces and centers of force, frictional resistance, principle of work, motions produced by constant and variable force. Motions of rigid bodies, impulsive forces. Solving of problems. *Spring term, Junior year;* 4 *exercises per week. Required of all students in the Engineering courses.*

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*Courses I, II, and III are given in the preparatory school.

Mechanical Engineering.

PROFESSOR DRAKE, MR. T. C. RODMAN, MR. KNOWLES, MR. KNIGHT.

The aim of this department is to give sound theoretical and thorough practical training to students who seek to prepare themselves for useful and responsible positions. Shop-work will furnish such training as will ensure, other things being equal, marked success in mechanical pursuits subsequent to graduation. The regular four-years' course deals with mechanical engineering as applicable to the industries carried on in New England and particularly in Rhode Island. Special attention is given to the designs and the economical operation of shops and mills, and of manufacturing and industrial machinery. The subjects of mechanism, metallurgy, heating and ventilation of buildings, engineering specifications, and laws of contracts are treated by lectures and text-books. The several laboratories are well equipped for working in wood and metals and for the testing of materials used in construction. Students in the course of mechanical engineering receive instruction in bench-work in wood, wood-turning, pattern-making, forging, machine-shop work and mechanical drawing.

The carpenter shop contains benches and tools sufficient to accommodate twenty-four students at one time. The subject is designed to give skill and confidence in working the various kinds of wood, and also to impart a fair knowledge of the principles of building and construction. The wood-turning room contains thirteen lathes, each with its complete set of gouges and turning-tools. In the same room are benches for pattern-making, and also power machinery for working wood; such as circular saw, hand-saw, jig-saw, surface-planer, buzz-planer, mortising-machine, dowel-machine and others. All students take wood-turning, and during the period each has practice under the direct charge of the engineer in care of the shop, boiler, and engine. The engine is of thirty horse-power. The work in pattern-making given to the students in the mechanical department consists in the making of selected pieces to illustrate the principles of shrinkage, drafts, finish, core-box making, built-up work, and the general requirements of pattern-making.

The forge shop will accommodate twelve students at one time. It contains twelve forges and anvils, a stock-cutter, a bolt-header, a post-drill, and is well supplied with all the hammers, tongs, and other forge and anvil tools necessary for complete work. A regular course is followed here as in other lines; and for the students of the agricultural course the work is of such a nature as is found about a farm. The various operations of drawing, bending, upsetting, and welding are taught and applied in the making of such useful pieces as staples, hooks, chains, and iron work for farm tools. The students of the mechanical department follow a similar course, but in a direction more suited to the machine shop. Bolts, nuts, machine-forgings, chisels, and lathe tools are made, and afterward put to practical use. Only students in the engineering courses work in the machine shop.

Practice in the machine shop is designed to give a sure knowledge of and intelligent practice in the best modern methods of using the various tools; such as lathes, planers, drills, milling-machines, and grinding-machines. Hand work at the bench is offered, and includes instruction in chipping, filing, scraping, and finishing. Students of former years have made an engine, dynamo, speed lathe, full set of arbors, set of nut arbors, and a variety of other tools.

In experimental engineering the students make tests of engines, boilers, pumps, steam gauges, injectors, and a hydraulic ram. The strength of materials is investigated theoretically in class under the head of mechanics of materials, and practically in the laboratory by conducting tests upon specimens of wood, iron, steel, brick, stone, cement, boiler-plate, etc. In hydraulics, water-meters are calibrated, and measurements of water made by orifices and weirs.

Subjects.

I. Mechanical Drawing.—Elementary principles, use of tools, inking-in, geometrical drawing. *Winter and Spring terms, Freshman year;* 2 *periods of* 2 *hours each per week. Required for a degree in Engineering courses.*

II. Mechanical Drawing.—Screw threads, bolts, and nuts, shade lines, line shading. *Fall term, Sophomore year;* 3 *periods of* 2 *hours each perweek. Required for a degree in Engineering courses.*

III. Mechanical Drawing.—Descriptive Geometry. *Spring term, Sophomore year;* 3 *periods of* 2 *hours each per week. Required for a degree in Engineering courses.*

IV. Mechanical Drawing.—Machine details and parts, tracing, blue-printing. *Winter term, Sophomore year;* 3 *periods of* 2 *hours each per week. Required for a degree in Engineering courses.*

VISTAS.

V. Mechanical Drawing.—Elements of machine design. *Fall, Winter, and Spring terms, Junior year;* 1, 2, *and* 3 *exercises, respectively, for students in Mechanical Engineering. Fall term, Junior year;* 1 *exercise for students in Electrical Engineering. Required for a degree in Mechanical and Electrical Engineering.*

VI. Mechanical Drawing.—Poultry-house designs; estimates of materials and cost, principles of construction. *Elective.*

VII. Mechanical Drawing.—Farm buildings; plans, estimates, specifications. *Elective.*

VIII. Wood-Working.—Use of tools, bench-work, and carpentering. *Fall and Winter terms, Freshman year;* 1 *exercise of* 3 *hours per week. Required for a degree in Engineering courses.*

IX. Wood-Working.—Wood-Turning. *Spring term, Freshman year;* 1 *exercise of* 3 *hours per week. Required for a degree in Engineering courses.*

X. Pattern-Making.—*Winter term, Junior year;* 2 *exercises of* 3 *hours each per week. Required for a degree in Mechanical Engineering.*

XI. Shop-Work.—Forging, drawing, bending, welding, and tool-dressing. *Fall term, Junior year;* 2 *exercises of* 3 *hours each per week. Required for a degree in Mechanical Engineering.*

XIII. Machine-Shop Practice.—*Winter and Spring terms, Junior year;* 2 *and* 3 *exercises per week, respectively. Fall and Winter terms, Senior year;* 3 *exercises of* 3 *hours each per week for students in Mechanical Engineering. Winter and Spring terms, Junior year;* 2 *exercises of* 3 *hours each per week for students in Electrical Engineering.*

XIV. Wood-Carving.—Care and use of tools, geometrical motives, diaper patterns, incised carving, flat and curved surface carving, historic ornament, low relief and high relief. 1 *exercise of* 3 *hours per week. Elective.*

XV. Steam Boilers.—Types, construction, strength, uses and management. *Spring term, Junior year;* 3 *exercises per week. Required for a degree in Engineering courses.*

XVI. Thermodynamics.—As directly applied to the steam engine. Simple and compound engines. *Fall term, Junior year;* 3 *exercises per week. Required for a degree in Engineering courses.*

XVII. Steam Engineering.—Valve gears, regulators, condensers, power plants, tests. *Winter term, Junior year;* 3 *exercises per week. Required for a degree in Engineering courses.*

XVII. (A) Transporting Machinery.—*Fall term, Senior year;* 3 *exercises per week. Elective.*

XVIII. Strength of Materials.—Wood, iron, steel, alloys, brick, stone, and cements. *Fall term, Senior year;* 3 *exercises and* 1 *laboratory exercise of* 2 *hours per week. Required for a degree in Mechanical Engineering.*

XIX. Theoretical and Applied Mechanics.—Bodies at rest and in motion, friction of rest and motion, energy, work, and power. *Winter and Spring terms, Senior year;* 4 *exercises per week. Required for a degree in Mechanical Engineering.*

XXI. Hydraulics.—Flow of water through pipes, orifices, and sewers. Measurement of flow of rivers and streams. Water power and water supply. *Fall term, Senior year;* 3 *exercises per week. Required for a degree in Mechanical and Highway Engineering.*

XXII. Engineering Laboratory.—Physical tests of materials used in industries and in construction. Tests of machines and apparatus. *Spring term, Senior year;* 2 *lectures and* 1 *laboratory exercise per week. Required for a degree in Mechanical Engineering.*

XXIII. Mill Construction.—Lectures upon the structural development and design of shops and mills. *Winter term, Senior year;* 3 *exercises per week. Required for a degree in Mechanical Engineering.*

XXIII. (A) A Mill Equipment. *Winter term, Senior year;* 3 *exercises per week. Elective.*

XXIV. Metallurgy.—See Chemistry XIX. *Fall term, Junior year;* 3 *exercises per week. Required for a degree in Engineering courses.*

XXV. Textile Machinery.—Lectures upon types of machinery and processes for the manufacture of cotton and woolen goods. *Spring term, Senior year;* 3 *exercises per week. Elective in Mechanical Engineering course.*

XXVI. Engineering Laboratory.—3 *exercises per week. Elective, Senior year.*

XXVII. Industrial Economics.—Management of shops, tool-room systems, keeping of card records, contracts, and specifications, etc. *Three lectures per week. Required for a degree in Mechanical Engineering.*

Electrical Engineering.

PROFESSOR TOLMAN, MR. W. S. RODMAN.

The object of this course is to provide thorough preparation in the fundamental principles of this branch of engineering; to illustrate the application of these principles, as far as possible, in laboratory practice and by visits to electric power plants in other places.

The department is equipped with two water-tube boilers of sixty horse-power each; a fifty horse-power Armington and Simms's engine; one thirty Kilo Watt 1,000 volt single-phase alternating-current generator; one five Kilo Watt Westinghouse rotary converter; one 110 volt direct-current motor arranged with slip rings so that the machine may be used to generate single-phase or three-phase current as desired; two 110 volt direct-current generators; one 25 Kilo Watts, the other 8 Kilo Watts; one 3 Kilo Watt 110 volt direct-current motor; a storage battery of 108, 30 amper-hour cells arranged so that different voltages may be obtained for testing purposes; transformers; condensers; Hewitt, arc and incandescent lamps; Thompson and Weston measuring instruments.

A photometry room has recently been fitted up for testing and comparing different forms of illuminating apparatus.

It is believed that this equipment is well selected to give a practical course in the manipulation of apparatus used in electrical engineering at the present time.

The arrangement of motive power in the laboratory is such that determination of the efficiency of an isolated plant may be made, including engine and boilers, as well as generators, and a test of the relative economy of the use of exhaust steam from such a plant for general heating purposes.

Subjects.

I. (A) Electricity and Magnetism (Thompson).—A study of the fundamental principles of the subject. *Fall term, Junior year;* 4 *exercises per week for students in Electrical and Mechanical Engineering.*

I. (B) The Dynamo (Hawkins and Wallis).—The design, construction, and care of the dynamo. *Winter term, Junior year;* 4 *exercises per week for students in Electrical and Mechanical Engineering.*

I. (C) Direct-Current Machinery (Sheldon and Mason).—*Spring term, Junior year;* 4 *exercises per week for students in Electrical and Mechanical Engineering.*

II. Alternating Currents and Alternating-Current Machinery.—This subject considers the theory of generation and utilization of alternating currents; the design, construction, and operation of single-phase and poly-phase alternating-current dynamos, motors, and transformers. Sheldon and Mason's Alternating Current Machines is completed and supplemented by lectures.

The laboratory work which accompanies the subject consists of the determination of the characteristics of alternating-current circuits having various combinations of inductance and capacity; the shape of E. M. F. and current waves of different machines; measurements of self-inductance, capacity, and mutual induction; measurements of power in single-phase and poly-phase circuits; measurements of total impedance in different circuits; determination of characteristics of alternators and rotary converters; complete tests of transformers, including those of core and copper losses, regulation, and efficiency. *Throughout* *the Senior year; 4 exercises per week for students in Electrical Engineering. Other students may elect the work as a three-hour subject.*

III. Telephones.—Lectures. *Winter and Spring terms; 2 exercises per week. Elective; open to Seniors and others who have had the equivalent Junior Electrical work.*

IV. Electric Lighting (Crocker).—A complete study of the subject of electric lighting. *Fall and Winter terms; 2 exercises per week. Elective; open to students in Electrical Engineering, Senior year.*

V. Design.—Design of a lighting system including a study of location and equipment of the central station, the distributing system, and cost of installation for arc and incandescent lighting. *Winter term; 2 exercises per week. Elective; open to students in Electrical Engineering, Senior year.*

VI. Power Distribution (Bell).—A study of different methods of power distribution with especial reference to the use of electricity as motive power. *Winter and Spring terms; 2 exercises per week. Elective; open to students in Electrical Engineering, Senior year.*

Highway Engineering.

DR. HEWES.

Instruction in highway engineering is designed to equip students as practical working highway engineers. Connected as it is on the one side with work in mechanic arts, and on the other hand with the advancement of agriculture through better roads, the subject is peculiarly appropriate to this college. The interest in the road movement is increasing rapidly, and the supply of competent road engineers is not sufficient to meet even the present demand for them. This work is offered, therefore, with a good deal of confidence in its success, and recommended to young men who have the requisite scholarship to complete it, and who may develop the administrative skill necessary for road engineers.

The instruction given is essentially civil engineering adapted to highway construction. The adaptation consists partly in emphasizing throughout the work in the underlying principles of civil engineering those subjects that should enter directly into a road builder's training, such as, for instance, the geology of road materials. Then in the Senior year the students' efforts are concentrated mainly on the theory and practice of the construction, maintenance, and repair of roads in the United States. For the present the field work has been provided for by coöperation with the town of South Kingstown. It is fully recognized that the highway engineer must have a training in civil engineering, and further recognized that he must know how to *build roads*.

Subjects.

I. Surveying (Raymond).—Study of instruments, and simple surveying with the compass, level, and transit. The practice in the field includes laying out and dividing land, leveling for profiles, and simple city work. The true meridian is determined by the sun and polar star. The office work includes plotting and computing from the field notes taken in the above work, also determination of areas. *Sophomore year, Spring term;* 4 *exercises per week. Required of students in Electrical and Highway Engineering.*

II. Surveying.—Railroad work, including a reconnoissance, preliminary and location survey of a short line of railroad in vicinity of Kingston. A complete preliminary estimate of the cost of the line is made from the notes in the office in the winter, and finished plans drawn. Special attention is also given to surveying for street railroads and highway improvement. *Throughout the Junior year;* 4 *exercises per week. Required of students in Highway Engineering.*

III. (A) Masonry Structures (Baker).—This course deals with the materials of masonry, including brick, stone, lime, and cement; the theory of masonry structures, including foundations for buildings, bridges, and piers; the construction of retaining walls, culverts, bridge abutments; masonry dams and arches. The student is directed to important articles in the current literature of the subject, and laboratory work is performed at intervals, as facilities and ability of the student permit. *Winter term, Senior year;* 3 *exercises per week. Required of students in Highway Engineering.*

III. (B) Stereotomy (French and Ives).—This subject is designed to familiarize students with the preparation of drawings used in masonry structures, and the practical details of building stone masonry. *Fall term, Senior year;* 3 *exercises per week. Required of students in Highway Engineering.*

IV. (A) Graphic Statics (J. Sondericker).—The student is taught the graphical method of treating construction problems. *Fall term, Senior year;* 3 *exercises per week. Required of students in Highway Engineering.*

IV. (B) Bridge Construction.—Following the general study of graphic methods, application is made to the construction of bridge trusses of various types. Highway bridges of steel, wood, and stone receive particular attention. *Winter term, Senior year;* 3 *exercises per week. Required of students in Highway Engineering.*

V. (A) Road Building.—This is a course in practical highway work. It includes the application of engineering principles to the preliminary survey, and estimate of cost of building and rebuilding roads in town and country. The subjects of surfacing old and new roads with gravel or stone and the drainage and repair of them receive particular emphasis. The details of staking out work, placing catch-basins, curbs, culverts, etc., and the crushing and rolling of stone are discussed. The student is directed to state and government reports and required to read selected topics in the literature of the subject. *Winter term, Senior year;* 3 *exercises per week. Required of students in Highway Engineering.*

V. (B) Field Work.—*Spring term;* 12 *hours' credit.*

Drawing.

PROFESSOR DRAKE, MISS ELDRED.

MECHANICAL DRAWING is required for a period of three years. Students keep notebooks, in which freehand sketches are made from models; and these sketches are afterward worked up into finished drawings. The making of working drawings for some machine completes the subject. Practice in tracing and blue-printing is given to all students. The drawing is designed to aid in the corresponding shop-work and not to produce professional draughtsmen.

FREEHAND DRAWING.—Freehand drawing is taught in the fall and spring terms and is required in the fall term, Freshman year. The required work comprises the study of perspective and form from models and objects. Electives are offered in cast drawing, pen drawing, painting, modeling, and the history of art. The department is well equipped with books and photographs, which are made more accessible to the student body by means of a series of small exhibitions of photographs illustrating the history of art accompanied by references to the library.

Subjects.

I. Freehand Drawing.—Outline drawing in pencil. *Fall term, Freshman year;* 1 *exercise of* 2 *hours per week for students in Agriculture and Science and* 2 *exercises for all Engineering students. Required of all candidates for a degree.* Miss Eldred.

II. Drawing in Charcoal from Still Life and the Cast.—*Spring term;* 3 *exercises of* 2 *hours per week. Elective.* Miss Eldred.

III. Drawing in Charcoal from Still Life and the Cast.—*Fall term;* 3 *exercises of* 2 *hours per week. Elective.* Miss Eldred.

IV. Modeling.—*Fall term;* 3 *exercises of* 2 *hours per week. Elective.* Miss Eldred.

V. Mechanical Drawing (For subjects in Mechanical Drawing, see Mechanical Engineering, pages 47–48). Professor Drake.

VI. Pen Drawing, or Painting in Oil, Water-Color, or Pastel.—*Spring term; 3 exercises of 2 hours per week. Elective.* Miss Eldred.

VII. History of Art.—*Spring term; 2 exercises of 1 hour per week. Elective.* Miss Eldred.

Stenography and Typewriting.

MISS TILTON.

Stenography and typewriting are offered as electives. A thorough knowledge of the common English branches is required of every one taking the subjects. The Benn Pitman system of stenography and either the touch or sight system of typewriting are taught. Absolute accuracy is required from the first in both subjects, and particular attention is paid to spelling and punctuation.

Subjects.

I. Elementary.—Instruction in principles; dictation. *Throughout the year; 4 exercises per week. Elective.*

II. Advanced.—Dictation, including the following: business letters, legal documents, terms used, deeds, wills, mortgages, contracts, declarations, etc.; hints useful in office work; general dictation. *Throughout the year; 3 periods per week. Elective.*

Military Science and Tactics.

CAPTAIN COOK.

All men college students are required to attend classes in military instruction for three years, or such portion thereof as the student is in college, unless excused by reason of physical disability. Credit is given for this work, and the same regulations of attendance are in force as for other subjects.

The war department furnishes for use in this instruction cadet rifles, equipments, sabres, ordnance, and details an officer of the army to act as instructor when the number of cadets is one hundred or more. The cadets are organized this year into a battalion of two companies of infantry, and detachments are made for artillery drill. Theoretical instruction is by means of lectures and recitations. The military exercises improve the physique, inculcate habits of prompt obedience and courtesy, and have an elevating influence on the conduct of the cadets.

The organization is as follows:

M. H. Cook, Captain, Signal Corps, B. R. I. M.	Commandant.
W. N. Berry	Major.
H. L. Gardiner	Captain.
J. K. Lamond	Captain.
J. R. Ferry	1st Lieutenant and Adjutant.
J. P. Grinnell	1st Lieutenant and Quartermaster.
P. W. Slocum	1st Lieutenant.
D. R. Kellogg	1st Lieutenant.
M. S. Macomber	2nd Lieutenant.
C. L. Coggins	2nd Lieutenant.
A. J. Minor	Sergeant-Major.
A. B. Davis	Quartermaster-Sergeant.
W. S. Kendrick	1st Sergeant.
A. H. Barber	1st Sergeant.
H. R. Lewis	2nd Sergeant.
J. W. Mills	2nd Sergeant.
G. J. Schæffer	3rd Sergeant.
G. W. Spalding	3rd Sergeant.
G. W. Sheldon	4th Sergeant.
T. C. Brown	4th Sergeant.
F. K. Crandall	Corporal.
A. R. Knight	Corporal.
J. L. Doyle	Corporal.
L. G. Schermerhorn	Corporal.
T. F. Salzer	Corporal.
H. O. Gough	Corporal.
C. P. Hubbard	Corporal.
C. H. Field	Corporal.
W. R. Green	Bugler.
C. P. Hart	Bugler.

Subjects.

I. Practical Instruction, Drills, and Exercises.—Infantry Drill Regulations, U. S. Army. *Three exercises of* 1 *hour each per week throughout the year. All the command.*

II. Recitations and Lectures in Infantry Drill. Regulations and Elements of Military Science.—*One exercise per week, entire year; Sophomores.*

III. Recitations and Lectures in Infantry Drill. Regulations and Elements of Military Science.—*One exercise per week, entire year; Freshmen.*

The Courses of Study Leading to a Degree.

EXPLANATORY.—The Roman numeral following a subject refers to the subject number; the Arabic figures next following indicate the page of the catalogue on which the subject is described. The last Arabic figure indicates the number of hours credit for the subject. By advice of the committee on courses of study, French may be substituted for German for the language requirement. Consulting with the committee on courses of study, the student chooses his electives from the subjects described on pages 29–55.

Freshman Year.

Agriculture and Courses in Science.

Fall.	Winter.	Spring.
English II (41) 2	English II (41) 2	English II (41) 2
German I (42) 4	German I (42) 4	German I (42) 4
Mathematics VI (45) 3	Mathematics IV (45) 4	Mathematics V (45)........ 4
Physics I (31) 3	Physics I (31) 3	Physics I (31)............. 3
Chemistry I (29) 3	Chemistry I (29) 3	Chemistry I (29) 3
Freehand Drawing I (53) .. 1	....	....
Military Drill and Science... 2	Military Drill and Science.. 2	Military Drill and Science... 2

Courses in Engineering.

English II (41) 2	English II (41) 2	English II (41) 2
German I (42) 4	German I (42) 4	German I (42) 4
Mathematics VI (45) 3	Mathematics IV (45) 4	Mathematics V (45)........ 4
Chemistry I (29) 3	Chemistry I (29) 3	Chemistry I (29) 3
Mechanics VIII (48) 1	Mechanics VIII (48) 1	Mechanics IX (48)......... 1
Freehand Drawing I (53) .. 2	Mechanics I (47) 2	Mechanics I (47) 2
Military Drill and Science... 2	Military Drill and Science.. 2	Military Drill and Science... 2

Sophomore Year.

Agriculture and Courses in Science.

Fall.		Winter.		Spring.	
English III (41)	2	English III (41)	2	English III (41)	2
German II (42)	3	German III (42)	3	German III (42)	3
Chemistry II (29)	3	Chemistry II (29)	3	Chemistry IV (29)	3
Zoölogy I (B) (35)	3	Zoölogy I (B) (35)	3	Zoölogy I (B) (35)	3
Botany I (33)	3	Botany I (33)	3	Botany I (33)	3
Elective	3	Elective	3	Elective	3
Military Drill and Science	2	Military Drill and Science	2	Military Drill and Science	2

Courses in Engineering.

English III (41)	2	English III (41)	2	English III (41)	2
German II (42)	3	German III (42)	3	German III (42)	3
Chemistry II (29)	3	Chemistry II (29)	3	Physics II (31)	4
Physics II (31)	4	Physics II (31)	4	Mathematics VIII (45)	3
Mathematics VII (45)	3	Mathematics VII (A) (45)	3	Mechanics III (47)	3
Mechanics II (47)	3	Mechanics IV (47)	3	Highway Engineering I (52)	4
Military Drill and Science	2	Military Drill and Science	2	Military Drill and Science	2

Junior Year.

Agriculture.

Fall.	Winter.	Spring.
English IV (41)........... 2	English IV (41)........... 2	English IV (41)........... 2
Agriculture I (A) (38)...... 3	Agriculture II (38)......... 3	Agriculture II (38)......... 3
Military Drill and Science.. 2	Military Drill and Science.. 2	Military Drill and Science.. 2
Elective..................12	Elective..................12	Elective..................12
(At least eight hours must be chosen from subjects bearing directly on Agriculture.)	(At least eight hours must be chosen from subjects bearing directly on Agriculture.)	(At least eight hours must be chosen from subjects bearing directly on Agriculture.)

Biology.

English IV (41)........... 2	English IV (41)........... 2	English IV (41)........... 2
Biology.................. 6	Biology.................. 6	Biology.................. 6
(Credit will be given for all courses in Zoölogy and Botany, and for Horticulture VI)	(Credit will be given for all courses in Zoölogy and Botany, and for Horticulture VI.)	(Credit will be given for all courses in Zoölogy and Botany, and for Horticulture VI.)
Military Drill and Science... 2	Military Drill and Science.. 2	Military Drill and Science.. 2
Elective.................. 9	Elective.................. 9	Elective..................9

Chemistry.

English IV (41)........... 2	English IV (41)........... 2	English IV (41)........... 2
Chemistry V (A) (29)...... 3	Chemistry V (A) (29)...... 3	Chemistry V (A) (29)...... 3
Chemistry V (B) (29)...... 3	Chemistry V (B) (29)...... 3	Chemistry V (B) (29)...... 3
Chemistry VI (30).......... 4	Chemistry VI (30).......... 4	Chemistry VII (30)........ 3
Chemistry III (29)......... 3	Chemistry VIII (30)....... 2	Chemistry X (30).......... 1
Military Drill and Science.. 2	Chemistry IX (30)......... 3	Chemistry XI (30)......... 1
Elective (not a Chemical subject)................... 3	Military Drill and Science.. 2	Chemistry XII (30)........ 3
	Elective (not a Chemical subject)................... 3	Military Drill and Science.. 2
		Elective (not a Chemical subject)............... 3

General Science.

Fall.		Winter.		Spring.	
English IV (41)	2	English IV (41)	2	English IV (41)	2
Military Drill and Science	2	Military Drill and Science	2	Military Drill and Science	2
Elective	15	Elective	15	Elective	15
(A minimum of six hours of Science must be chosen.)		(A minimum of six hours of Science must be chosen.)		(A minimum of six hours of Science must be chosen.)	

Mechanical Engineering.

English IV (41)	2	English IV (41)	2	English IV (41)	2
Mathematics VIII (45)	3	Mathematics VIII (45)	4	Mathematics IX (45)	4
Mechanics V (48)	1	Mechanics V (48)	2	Mechanics V (48)	3
Mechanics XI (48)	2	Mechanics X (48)	2	Mechanics XIII (48)	3
Mechanics XVI (48)	3	Mechanics XIII (48)	2	Mechanics XV (48)	3
Chemistry XIX (30)	3	Mechanics XVII (48)	3	Electrical Engineering I (C) (50)	4
Electrical Engineering I (A) (50)	4	Electrical Engineering I (B) (50)	4		
Military Drill and Science	2	Military Drill and Science	2	Military Drill and Science	2

Electrical Engineering.

English IV (41)	2	English IV (41)	2	English IV (41)	2
Mathematics VIII (45)	3	Mathematics VIII (45)	4	Mathematics IX (45)	4
Mechanics V (48)	1	Mechanics XIII (48)	2	Mechanics XIII (48)	2
Mechanics XVI (48)	3	Mechanics XVII (48)	3	Mechanics XV (48)	3
Chemistry XIX (30)	3	Electrical Engineering I (B) (50)	4	Electrical Engineering I (C) (50)	4
Electrical Engineering I (A) (50)	4	Electrical Engineering (51)	3	Electrical Engineering (51)	3
Electrical Engineering (51)	3	Military Drill and Science	2	Military Drill and Science	2
Military Drill and Science	2				

Highway Engineering.

English IV (41)	2	English IV (41)	2	English IV (41)	2
Mathematics VIII (45)	3	Mathematics VIII (45)	4	Mathematics IX (45)	4
Mechanics XVI (48)	3	Mechanics XVII (48)	3	Mechanics XV (48)	3
Chemistry XIX (30)	3	Chemistry IX (30)	3	Geology IV (32)	3
Highway Engineering II (52)	4	Highway Engineering II (52)	4	Highway Engineering II (52)	4
Military Drill and Science	2	Military Drill and Science	2	Military Drill and Science	2
Elective	3	Elective	3	Elective	3
		(Electrical Engineering I (B) is recommended as an elective.)		(Electrical Engineering I (C) is recommended as an elective.)	

Senior Year.

Agriculture.

Fall.	Winter.	Spring.
History V (43)............ 3	Economics I (44).......... 3	Economics I (44).......... 3
Elective..................14	Elective..................14	Elective..................14
(At least eight hours must be chosen from subjects bearing directly on Agriculture.)	(At least eight hours must be chosen from subjects bearing directly on Agriculture.)	(At least eight hours must be chosen from subjects bearing directly on Agriculture.)

Biology.

History V (43)............ 3	Economics I (44).......... 3	Economics I (44).......... 3
Biology.................. 9	Biology.................. 9	Biology.................. 9
(Credit will be given for all courses in Zoölogy and Botany, and for Horticulture VI.)	(Credit will be given for all courses in Zoölogy and Botany, and for Horticulture VI.)	(Credit will be given for all courses in Zoölogy and Botany, and for Horticulture VI.)
Elective.................. 3	Elective.................. 3	Elective.................. 3

Chemistry.

History V (43)............ 3	Economics I (44).......... 3	Economics I (44).......... 3
Chemistry XIII (30)....... 3	Chemistry XIII (30)....... 3	Chemistry XVII (30)....... 3
Chemistry XIV (30)....... 5	Chemistry XX (A) (31).... 3	Special Chemistry......... 3
Chemistry XII (30)........ 3	Chemistry XVI or XVIII (30) 3	Chemistry XX (31)..........
Chemistry XX (31)..........	Chemistry XX (31)..........	Elective.................. 6
Chemistry XVI or XIX (30). 3	Elective.................. 3	
	(To be chosen from the following: History II, IV, French, German, Psychology.)	(To be chosen from the following: History, II, IV, French, German, Psychology, Chemistry XV.)

General Science.

History V (43)............ 3	Economics I (44).......... 3	Economics I (44).......... 3
Elective..................12	Elective..................12	Elective..................12
(A minimum of six hours of Science must be chosen.)	(A minimum of six hours of Science must be chosen.)	(A minimum of six hours of Science must be chosen.)

Mechanical Engineering.

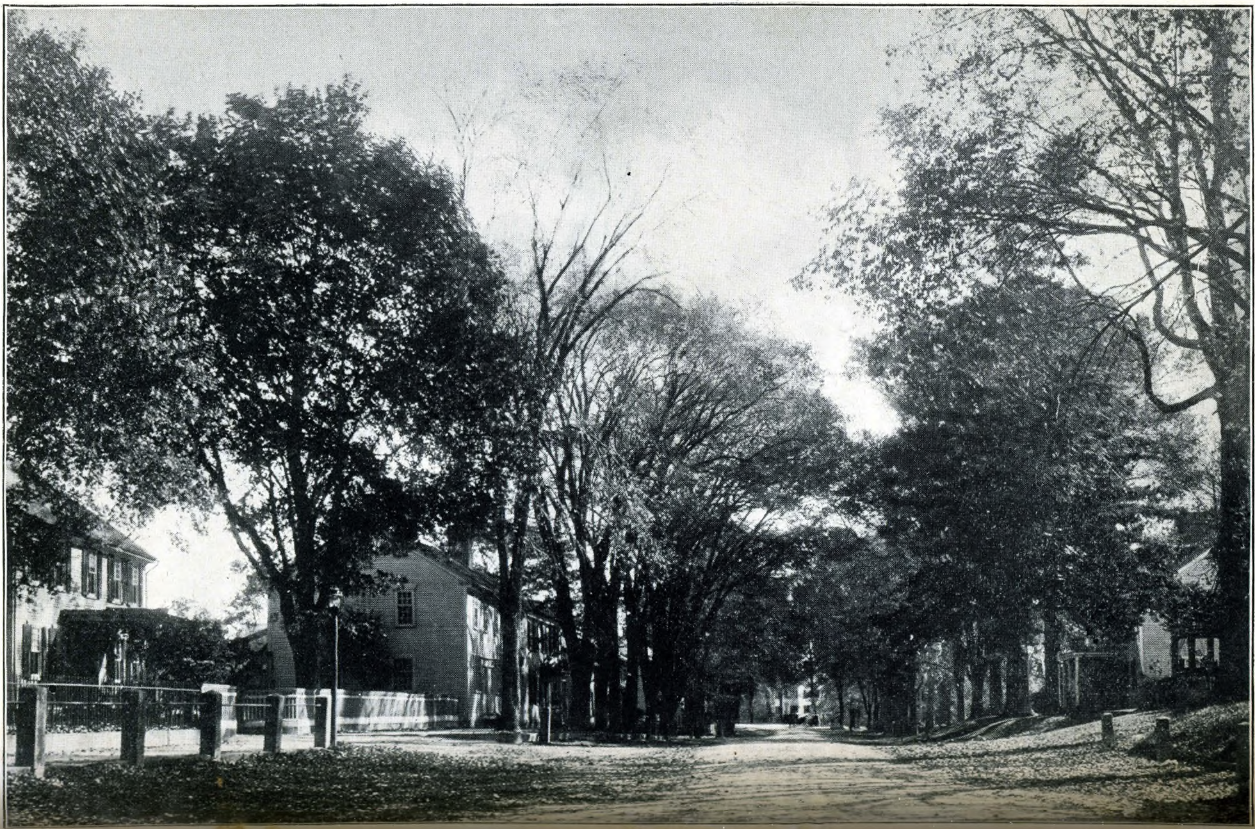
Fall.		Winter.		Spring.	
History V (43)	3	Economics I (44)	3	Economics I (44)	3
Mechanics XIII (48)	3	Mechanics XIII (48)	3	Mechanics XIX (49)	4
Mechanics XVIII (48)	4	Mechanics XIX (49)	4	Mechanics XXII (49)	3
Mechanics XXI (49)	3	Mechanics XXIII (49)	3	Mechanics XXVII (49)	3
Elective	3	Elective	3	Elective	3
(To be chosen from the following: Mechanics XVII (A), XXVI, Electrical Engineering II, Highway Engineering.)		(To be chosen from the following: Mechanics XVIII (A), XXVI, Electrical Engineering II, Highway Enging.)		(To be chosen from the following: Mechanics XXV, XXVI, Electrical Engineering II, Highway Engineering.)	

Electrical Engineering.

History V (43)	3	Economics I (44)	3	Economics I (44)	3
Electrical Engineering II (50)	4	Electrical Engineering II (50)	4	Electrical Engineering II (50)	4
Mechanics VI (48)	3	Mechanics XV (48)	3	Inspection Excursions	
Elective	6	Elective	6	Elective	6

Highway Engineering.

History V (43)	3	Economics I (44)	3	Economics I (44)	3
Mechanics XVIII (48)	4	Highway Engineering III (A) (52)	3	Highway Engineering V (B) (53)	12
Mechanics XXI (49)	3	Highway Engineering V (A) (52)	3		
Highway Engineering III (B) (52)	3	Highway Engineering IV (B) (52)	3		
Highway Engineering IV (A) (52)	3				



KINGSTON VILLAGE.

THE PREPARATORY SCHOOL.

The Preparatory School

OF THE

Rhode Island College of Agriculture and Mechanic Arts.

This school is immediately connected with the college, is under the same government, and, as far as possible, gives to its students the same facilities of library and laboratories.

The preparatory school has three lines of work:

1. The Preparatory Course.
2. The Agricultural High School.
3. The Industrial High School.

These three courses are more fully explained on this and subsequent pages.

The Preparatory Course.

The course is intended for young men and women who have not the advantages offered by a high school in their home town, and also for those who because of maturity are out of touch with the schools of their neighborhood. Pupils are prepared for the Freshman class in the college.

Entrance Requirements of the Preparatory School.

First-Year Class.

For admission to the first year in the preparatory school examinations are given in arithmetic, geography, English grammar, and United States history. The arithmetic examination covers common and decimal fractions, denominate numbers, percentage, and interest. For the examinations in English grammar and United States history students are recommended to study books of the same grade as Whitney and Lockwood's English grammar and Fiske's United States history. In English each candidate is required to answer certain questions in grammar, and to write a short composition correct in spelling, capitalization, punctuation, and paragraphing. Candidates are expected to show familiarity with the following works: Hawthorne's The Great Stone Face and the Snow Image; Tennyson's Idyls of the King; DeFoe's Robinson Crusoe; The Arabian Nights; Macaulay's Lays of Ancient Rome.

Second-Year Class.

Students wishing to enter the second-year class are examined in geography, United States history, advanced arithmetic, algebra to quadratics, and English. In 1905–1906 the English requirements will cover Shakespeare's Merchant of Venice, Macbeth, and Julius Cæsar; Addison's The Sir Roger De Coverley Papers; Scott's Ivanhoe; Eliot's Silas Marner; Lowell's The Vision of Sir Launfal; Coleridge's The Ancient Mariner.

Admission without Examination.

Any mature person who can satisfy the examining committee that he has the capacity to do the work, may enter on probation and take the examination later.

Program of Study.

First-Year Preparatory.

	Periods per week.
Algebra (Hall & Knight). To Quadratics	5
English: Review of Grammar. College Requirements in Literature.	4
General History (Myers), entire book	3
Plant Life (Bailey's Botany)	3
Military Drill or Gymnasium	3
Mechanical Drawing or Clay Modeling, Fall and Spring. Woodcarving, Winter.	1

Second-Year Preparatory.

Algebra. From Quadratics	2
Geometry (Hobbs). Plane Geometry with original demonstrations	4
English. College entrance requirements completed	3
Latin (Collar & Daniel's First Year Latin), entire book. Via Latina, twenty-five pages	5
Military Drill, or Gymnasium,	3
Carpentry* or Freehand Drawing, Fall and Spring. Woodcarving, Winter.	1

Diplomas.

Pupils are awarded diplomas upon completing the regular work of the preparatory school.

Correspondence relating to work in the preparatory school should be directed to M. H. Tyler, Kingston, R. I.

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*Students who have not completed the work in mechanical drawing take that in the place of carpentry.

The Agricultural High School.

This course is designed to occupy a position somewhat similar to that of the Manual Training High School of the city, except that it offers agriculture in place of mechanics. It aims to do for those interested in rural pursuits what the Manual Training High School does for those interested in mechanical lines. It offers to the student fitted to enter a high school an opportunity to take much of the regular work of a high-school course, combined with work in agriculture which will be of direct practical value on the farm. This course aims to put the student in the field, the barn, and the greenhouse, just as the manual-training course puts him at the bench. Classroom instruction goes hand in hand with laboratory practice, emphasizing both the how and the why of agricultural methods.

Requirements for Admission.

The requirements for admission are the same as for admission to the first year of the preparatory school (see pages 65–66). With the consent of the examining committee a mature person who has not recently attended school may, without examination, enter on probation.

Subjects of Study.

Beginning with the first year the subject entitled "The Soil and the Plant" treats of the plant; the more important characteristics of different soils, considering their physical make-up, their crop-producing power and the physical properties most essential in a fertile soil; the forms of plant-food available, and how best applied; the changes which take place in the soil; the mixing of fertilizers, and interpretation of fertilizer formulas. Much attention is given to the principles of tillage and to methods of increasing and conserving soil moisture. The subject includes simple experiments in the laboratory, tillage experiments and methods of tile drainage, together with a study of the propagation and management of plants in the greenhouse.

The spring term is given to a study of vegetable gardening, particular attention being paid to the methods employed by market gardeners. Experience is gained in the starting of plants under glass, the making and management of hotbeds, the sowing of seeds, the care and transplanting of plants, etc.

In the fall term of the second year rotations and their importance in agricultural practice, meadows, pastures, and soiling, together with the leading farm crops and their methods of management are discussed. The subject of farm animals includes a brief study of anatomy, physiology, and hygiene, the essential points of breeding, a glance at the most prominent characteristics of a few leading breeds and practice in judging.

In the winter term the subject of farm mechanics embraces a study of the simpler laws of mechanics in use in agricultural implements, farm power, principles of draft and construction, with practice in taking down and setting up agricultural machinery, etc. The work with animals gives chief attention to the dairy, including the feeding and care of dairy cows, food requirements, composition of foods and compounding of rations, together with the care and handling of milk.

The study of fruit-growing in the spring term includes methods of propagation, planting, pruning, and caring for fruit trees and small fruits, methods of fighting insects and fungi, etc. In animal husbandry the spring term is occupied with poultry culture, including practice in incubating, brooding, care and feeding of chicks.

So far as possible the laboratory work follows the lines of instruction as laid down for the different years; but since laboratory work in agriculture must be to a great extent dependent upon the season, the work in the field does not always correspond with the work in the classroom at the time. The laboratory work includes practical experience in such subjects as tile drainage, the management of farm machinery, the tilling of land, the pruning of trees, packing of apples, grafting and making of cuttings, the preparation of insecticides and fungicides, the sowing of seeds and handling of plants under glass and in the field, the feeding, care and management of cows, the handling of milk, judging of stock, rearing of chicks and other operations of the farm.

The subject of plant life running through the first year is arranged with special reference to the needs of agricultural students. The principles studied in geometry are applied to measuring land. Business arithmetic and bookkeeping deal with the every-day business of the farmer. The subject of social problems deals with the relation of the farmer to society. The complete course of study is as follows:

Program of Study.

All subjects continue throughout the year unless otherwise stated.

First Year.

	Hrs. per week.
Algebra (Hall & Knight). To Quadratics	5
English. Covers requirements for admission to first year, preparatory school	4
Plant Life The agricultural plant, its environment, nutrition, growth and reproduction; text-book supplemented by reading, laboratory, and field work. Special study of rose family, clover family, grass family and weed plants; seed testing for germination and purity. Plant diseases and bacteria.	3
The Soil and the Plant (Fall and Winter terms). The soil: constituents; factors determining fertility; texture, underdraining and its influence on texture; tillage, its objects and methods; humus, its effects and how obtained; plant-food, essential elements, where obtained, their effect upon the plant; fertilizers and fertilizer formulas; soil moisture, capacity for and conservation. The plant: general demands, demands from the soil, demands from the air; how the plant lives; propagation. Vegetable Gardening (Spring term). Market gardening methods. Seed-sowing, transplanting, watering, making and management of hotbeds. Study of different vegetable garden crops.	3
Military Drill. Electives.—Carpentering, Forging, Freehand Drawing, Mechanical Drawing, Stenography.	

Second Year.

FALL TERM.

	Hrs. per week.
Algebra. Quadratics	2
Geometry (Hobbs). Plane Geometry	4
General History (Myers)	3
Farm Crops	3
Rotations, advantages, dangers from neglect. Pastures, permanent, in rotation; meadows, soiling, farm crops and their management.	
Animals and their management	3
Anatomy, physiology, hygiene, breeding, judging.	
Military Drill.	
Electives.—Forging, Carpentering, Freehand Drawing, Mechanical Drawing, Stenography.	

WINTER TERM.

Business Arithmetic and Farm Bookkeeping	3
Geometry	4
General History	3
Farm Mechanics	3
Mechanical laws used in farm machinery, farm power, principles of draft and construction, taking down and setting up of agricultural machinery.	
Dairying	3
Feeding and care of dairy cows, food requirements, compounding of rations, care and handling of milk.	
Military Drill.	
Electives.—Forging, Carpentering, Mechanical Drawing, Stenography.	

SPRING TERM.

Social Problems of the Farmer	3
General History	3
English. Study of authors, with theme writing	3
Fruit-Growing	3
Orchard and small fruits, grafting plants, pruning, methods of fighting insects and fungi.	
Poultry Culture	3
Incubating, brooding, care, and feeding of chicks.	
Military Drill.	
Electives.—Forging, Carpentering, Freehand Drawing, Mechanical Drawing, Stenography.	

The Industrial High School.

The college has arranged to give a series of four courses, each of two years, in the following industrial lines:

I. CARPENTRY.
II. MACHINE SHOP.
III. MECHANICAL DRAUGHTING.
IV. STEAM ENGINEERING.

These courses consist of a moderate amount of study in the preparatory school, and a large amount of practice in the college shops or draughting-room. They are planned to meet the needs of those young men who are unable to spend four years or more to complete the regular engineering course, and who need to begin their lifework early.

Requirements for Admission.

The requirements for admission are those for admission to the first year of the preparatory school (see pages 65–66). With the consent of the examining committee a mature person who has not recently attended school may, without examination, enter on probation.

Subjects of Study.

Instruction is given in English, algebra, geometry, physics, and military science.

Those who select one of the shop courses are required to take a short course in mechanical drawing, and likewise those who may enter the draughting course are to spend some time in the shops. About one-third of the time for the two years is spent in study and two-thirds in shopwork or drawing. It is expected that only those persons who have a special desire or a natural inclination for mechanics will enter these courses. Such a student, by two years of faithful work, can acquire the principles and practice of a trade and, at the end, take a place in a shop as a journeyman at good wages.

Program of Study.

All subjects continue throughout the year.

First Year.

	Hrs. per week.
Algebra (Hall & Knight)	5
English. Covers requirements for admission to first year, preparatory school	4
Drawing	3
First term; freehand, principles of projection, lettering. Second term; geometrical problems, use of instruments. Third term; machine details, tracing.	
Shop Practice	3
The student elects this work in carpentry, machine shop, mechanical draughting, or steam engineering.	
Military Drill and Science	2

Second Year.

Geometry (Hobbs). Plane Geometry	4
English	3
Physics	2
Lectures	3
Shop Practice and Mechanical Drawing	5
The student continues in the same line of manual work elected the first year.	
Military Drill	1

EXTENSION WORK.

Extension Work

OF THE

Rhode Island College of Agriculture and Mechanic Arts.

Agriculture.

The purpose of the extension work in agriculture is to carry the help of the college to those who cannot come to it for study. Whenever necessary and possible, visits will be made to any part of the state for the purpose of identifying injurious insects or plant diseases and giving instruction in the methods of treatment. Soils will be tested for acidity, and suggestions given regarding the use of lime and fertilizers. The college is open for consultation at any time in regard to any problem of the farm, garden, or orchard.

Whenever possible, arrangements will be made for talks or demonstrations by members of the college faculty or experiment-station staff, when called for, at any agricultural meeting, or neighborhood gathering. Co-operative experiments in different parts of the state are being carried out, with a view to helping the farmer solve some of the problems which are peculiar to his own farm or his portion of the state. During the past season these extension experiments have been conducted in top-dressing grass-lands at Matunuck, and in fumigating with hydrocyanic acid gas for greenhouse pests at Newport. This season experiments will be conducted in the treatment of San José scale with lime-sulphur wash and with the kerosene-limoid mixture. Top-dressing experiments will be continued and new work in the growing of alfalfa and clover will be undertaken as far as time will permit.

Demonstrations in spraying have been conducted against the San José scale; and numerous visits have been made to farms, orchards, market gardens, and greenhouses, to identify insects and prescribe remedies and to consult with the owners in regard to a variety of agricultural questions. This work will be continued the coming year.

During last fall J. Weston Hutchins, of Michigan, a practical farmer and institute lecturer, was engaged for a series of special lectures. Twenty-six meetings were held in twenty-one different places in the state, with a total attendance of nearly one thousand people. The subjects treated were TILLAGE, FEEDING, A MAN AMONG MEN, and FARMING THAT PAYS.

Members of the faculty have prepared lectures on various subjects which they are ready to deliver at any place in the state. The lectures are free, the only charge being the traveling expenses of the speaker. A pamphlet giving list of lectures and full instructions for obtaining them has been prepared and can be had on application.

Another important phase of extension work is that of the Nature Guard, which aims to interest the young people of the schools in the things of nature and the farm. Assistance will also be given to those who desire to carry on study at home.

The Nature Guard.

The Nature Guard is an organization of young people formed for the purpose of awakening in its members a livelier interest in the things of outdoor life. Its primal object is to stimulate observation and to furnish a key to the coyly hidden secrets of nature, while underneath and behind it all is the desire to instill a love of nature and of country life.

The boys and girls in one school, or in one room, if the school is graded, form themselves into a band and elect officers, which are a Spy and a Guardian. Each band fixes its own times of meeting, and adopts its own methods of procedure. Enrolment cards, to be signed and returned, are furnished from headquarters. Printed leaflets are mailed monthly during the school-year, and monthly reports giving observations of their own are asked from the members.

Designs for a neat charter to be issued to each band are being considered, and it is hoped to have copies ready at the opening of the school year of 1905–6. Each member who sends in an enrolment card will receive an appropriate lapel button, and at the end of the year a neat certificate will be forwarded to all members who have sent in reports during the year.

Application has been made to the post-office department to enter the Nature-Guard leaflets in the mails as second-class matter. A heavier paper can then be used, better results will be obtained from the half-tone work, and the leaflet can be enlarged to eight pages if need be. A teacher's leaflet will be issued before the close of the year 1904–5, summarizing the principles and motives underlying nature-study and giving the gist of present practices in teaching it in the public schools. It is hoped that as this work progresses it will be possible to have a day, toward the close of the school year or in the early fall, set aside for a Nature-Guard outing or picnic. Several schools can join in these outings, if convenient, and exercises that will make the occasion pleasant and instructive can be arranged.

Application has been made to the Washington County Agricultural Society to grant premiums to school children for seed collections and for exhibits of a few vegetables which can easily be grown, either in school gardens or on plots at home. Advice and assistance will be given, so far as time will permit, to schools wishing to do school garden work. Further notes in regard to this work will be given in leaflets and circulars sent out to Nature-Guard bands and teachers.

The following bands were enrolled during the school year of 1903–1904:

Arctic Grammar School Band, Arctic, R. I. John F. Deering, Teacher.

Bright Eyes Band, Hope, R. I. Florence Ralph, Spy; Alice O'Rouke, Guardian.

Emerson Band, Phenix, R. I. Frederick B. Tew, Spy; Eva M. Snell, Guardian.

Family Band, Peru, Maine. Mrs. M. V. Hall, Mother.

Greenwood Band, Normal Grammar School, Providence, R. I. Roy Lyon, Spy; Jessie M. Gardiner, Guardian.

Harris Avenue Band, Riverpoint, R. I. Wayne Whitman, Spy; Mabel Blissart, Guardian.

Hope Band, Providence, R. I. Cassius Williams, Spy; Sara Fletcher, Guardian.

Laurel Lake Band, Kingston, R. I. Miss Hill, Teacher.

Lookout Band, Peace Dale, R. I. Magdalene Brennan, Spy; Lucretia Brown, Guardian.

Mayflower Band, Casco, Maine. Roy Colby, Spy.

Mayflower Band, Madison, Conn. Emma Lute, Spy; Emily Kashamur, Guardian.

Myrtle Band, Lynn, Mass. Joseph Golden, Spy; Edith Howard, Guardian.

Seekers Band, Davisville, R. I. Edith M. Vaughn, Teacher.

Seekers, The, Lynn, Mass., Mrs. E. T. Chamberlin, Mother.

Star Band, Kingston, R. I. Lynwood Cook, Spy; Ralph Knight, Guardian; Mary D. Whaley, Teacher.

Sunset Band, Kenyon, R. I. Leslie W. Dawley, Spy; John A. Phillips, Guardian.

Sylvan Band, Sylvania, Pa. Neil Cameron, Spy; Hannah Luckey, Guardian.

Wide-Awake Band, Providence, R. I. George F. Mycroft, Spy; Hugh McAndrews, Guardian.

Wide-Awake Band, Riverpoint, R. I. Walter Pike, Spy; Katherine Farrel, Guardian.

Wide-Awake Band, Yantic, Conn. May Foley, Spy; Marion J. Lamb, Guardian.

Religious Organizations.

Young Men's Christian Association.

Albert Edmund Wilkinson	President.
David Raymond Kellogg, '07	Vice-President.
Clarence Elmer Brett	Secretary.
Wallace Noyes Berry, '06	Treasurer.

Young Women's Christian Union.

Marion Graham Elkins, '06	President.
Sarah Elizabeth Champlin, '05	Vice-President.
Ethel Aldrich Tucker, '07	Secretary.
Cora Edna Sisson, '07	Treasurer.

Alumni Association.

George Albert Rodman, '94 Providence, R. I.	President.
Howland Burdick, '95 The College, Kingston, R. I.	Vice-President.
George Edward Adams, '94 Experiment Station, Kingston, R. I.	Secretary-Treasurer.

Executive Committee.

G. A. Rodman, '94,
Howland Burdick, '95,
G. E. Adams, '94,
Ebenezer Payne, '99,
R. W. Pitkin, '02.

Students.

Seniors.

Champlin, Sarah Elizabeth, Gen. Sci	Slocums.
Dow, Victor Wells, Highway Eng	Hartland, Me.
Gilman, Jean, Highway Eng	Gilman, Me.
Harrall, Nellie Armstrong, Gen. Sci	Wakefield.

Juniors.

Berry, Wallace Noyes, El. Eng	Chatham, Mass.
Elkins, Marion Graham, Gen. Sci	Amesbury, Mass.
Harding, Lee LaPlace, Highway Eng	Lyme, Conn.
Nichols, Howard Martin, El. Eng	Kenyon.

Sophomores.

Arnold, Benjamin Howard, El. Eng	East Greenwich.
Barber, Arthur Houghton, Mech. Eng	East Greenwich.
Coggins, Calvin Lester, El. Eng	Sharon, Mass.
Ferry, Jay Russell, Highway Eng	Palmer, Mass.
Kellogg, David Raymond, Chem	New London, Conn.
Kendrick, Winfield Smith, El. Eng	South Chatham, Mass.
Keyes, Frederick George, Chem	Rochester, N. Y.
Lamond, John Kenyon, El. Eng	Usquepaugh.
Lewis, Harry Reynold, Agr	Providence.
Macomber, Miner Sanford, Chem	Hartford, Conn.
Poladian, News, Chem	Marash, Turkey.
Sisson, Cora Edna, Gen. Sci	Wickford.
Slocum, Percy Wilfred, Gen. Sci	Kingston.
Tucker, Ethel Aldrich, Gen. Sci	Kingston.

Freshmen.

Briggs, William Henry	Hope Valley.
Brown, Lester Freeman	West Kingston.
Burgess, Paul Steere	Foster.
Davis, Augustus Boss	Kingston.
Drew, Joseph Drake	Brockton, Mass.
Field, Clesson Herbert	Brockton, Mass.
Fiske, Herbert Andrew	East Providence.
Fitz, Edward Arthur	Pascoag.
Gardiner, Harold Lincoln	Wakefield.

Gardiner, Robert Franklin	Wakefield.
Gory, Edward Allen	Pascoag.
Green, William Remington	Woonsocket.
Grinnell, Jason Percival	Middletown.
Hubbard, Carl Perry	Woburn, Mass.
Long, John Joseph	Woonsocket.
Mitchell, Clovis William	Harrisville.
Smith, John Lebroc	Narragansett Pier.
Tucker, Hannah Mahala	West Kingston.

Specials.

Armitage, Joseph Bradley	Providence.
Brett, Clarence Elmer, Agr	Brockton, Mass.
Coll, Ricardo, Agr	Buenos Ayres, Argentine Republic.
Gilbert, Pauline Viola	Amherst, Mass.
Jordan, Frederick William, Chem	Auburn.
Lee, Alfred Rogers, Agr	Greeword.
Leighton, Abbie Frances	Kingston.
Millard, Maud Muller	Lapier, Mich.
Pierce, Orrin Francis	South Dartmouth.
Rose, Orpha Lillie	Kingston.
Sherman, Benjamin Francis, Agr	West Kingston.
Sherman, Mary Albro	Newport.
Townsend, Adolph Lawrence, Agr	Brooklyn, N. Y.
Tucker, Ellen Capron	Kingston.
Tyler, Edwina Richardson, Art	Kingston.
Weeden, James Vaughan, Agr	Providence.
White, Frederick Pierce	Pawtucket.
Wilkinson, Albert Edmund, Agr	Dorchester, Mass.

Preparatory School.

Akers, Arthur Clerance	Charlestown.
Akers, Mary Louise	Charlestown.
Albro, Harford Harold	Providence.
Birkby, Charles Hartley	Carolina.
Brigham, Herbert Brewster	Brockton, Mass.
Briggs, Sarah Elsie	Kingston.
Browne, Mary Katharine	Providence.
Brown, Thomas Clarke, Jr	East Greenwich.
Carlson, William Louis	Brockton, Mass.
Carr, Chester Arthur	Melville Station.
Comins, Raymond Carey	Willimantic, Conn.
Corriveau, Louis, H. M. de B	Stonington, Conn.
Crossman, Samuel Sutton	Needham, Mass.
Curtice, Anna Helena	Kingston.
Dennis, Marshall LeRoy	Melville Station.

Dexter, Leon Arthur	Moosup Valley.
Doyle, John Lawrence	Providence.
Eddy, James Arthur, Jr	North Dartmouth, Mass.
Felix, Juan Manuel	Neuvitas, Cuba.
Fitzpatrick, James	Carolina.
Fitzpatrick, Margaret	Carolina.
Gardiner, Henry Wallace	Wakefield.
Givrigian, Sirabeon	Kingston.
Gough, Harry Ogden	Peace Dale.
Griffith, William Herbert	Narragansett Pier.
Grinnell, Lizzie Vera	Liberty.
Hart, Crawford Peckham	Middletown.
Hayden, Littleton Carlyle	Providence.
Kelly, John	Peace Dale.
Kenyon Albert Green	Wyoming.
Kenyon, Amos Harris	Usquepaugh.
Kenyon. Susan Elnora	Usquepaugh.
Kingston, Susie Angelena	Carolina.
Knight, Arthur Rhodes	East Greenwich.
Knight, Richard Greene Howland	East Greenwich.
Knowles, Walter	Kingston.
Lamas, Dionisio	Guaimaro, Cuba.
Lamond, Helen Scott	Usquepaugh.
Lays, Karl Eldridge	Brockton, Mass.
Learned, Raymond Hill	Florence, Mass.
Learned, Wilfred Hill	Florence, Mass.
Lewis, George Mitchell	Kingston.
Martin, George	Cartago, Costa Rica.
Mathieu, Antonia	Alton.
McKay, Ernest Alfred	New Dorchester, Mass.
Mills, John Walter	East Greenwich.
Minor, Arthur Jacob	Rochester, N. Y.
Mugerditchyan, Berge Stephen Der	New York City.
Nickerson, Walter Epson Lee	Madison, N. Y.
Quarters, Thomas Joseph	Adamsville.
Quinn, Stephen	Wakefield.
Rawdon, Herbert Edward Carson	Providence.
Salzer, Thomas Frederick	Peace Dale.
Schæffer, George Joseph	Peace Dale.
Schermerhorn, Lyman Gibbs	Kingston.
Sheldon, George Ware	Wakefield.
Sherman, Julia Frances	West Kingston.
Sisson, Bernice Eugenia	White Rock.
Slack, Charles Gorham	Abbott Run.
Slack, Lewis	Abbott Run.
Spalding, George Wanton	Providence.
Spencer, Roger Miner	Windsor, Conn.
Suros, Reyes Obdulio	Mazanillo, Cuba.

Taylor, Walter Gray	Middletown.
Tefft, Stephen Benjamin	Hamilton.
Tefft, William Hazard	Davisville.
Tucker, Hattie Taber	West Kingston.
Watson, Leon Burton	Wakefield.
Weaver, Bertha Isabel	Peace Dale.
Whipple, Lucius Albert	Greenville.
White, George Arthur, Jr	East Greenwich.
Yorganjian, Martin	Wakefield.

Course in Poultry-Keeping, 1904–1905.

Bogosian, Mardiros Dard	Providence.
Clark, Eliot Gardner	Ashland, Mass.
Dodge, Herbert William	Woonsocket.
Dodge, Jean McLeuise	Woonsocket.
Eden, John Jay	Bayonne, N. Y.
Harrington, Evelyn Maude	Warren.
Kerlin, Thaddeus Leavitt	Peace Dale.
Kissick, George Edward	Bristol.
Lyons, James Francis	Peace Dale.
Myerding, Otto	Bremen, Germany.
Nylander, George W	Brookline, Mass.
Parker, Bertram Munson	Vineyard Haven, Mass.
Rice, Minnie Lee	Wilbraham, Mass.
Swan, Walter David	Bradford, Mass.
Weeden, James Vaughan	Providence.

Course in Farm Practice, 1904–1905.

Eden, John Jay	Bayonne, N. Y.
Hazard, Rowland	Peace Dale.
Hurt, Anna	Houston, Texas.
Kissick, George Edward	Bristol.
Townsend, Adolph Lawrence	Brooklyn, N. Y.
Weeden, Arthur P	Providence.

Total number of students (none counted twice)	147

Graduates.[*]

1894.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
ADAMS, GEORGE EDWARD Kingston.	Agr.	Assistant in charge of Field Experiments, R. I. Agr. Experiment Station.
AMMONDS, GEORGE CLARENCE 5 Boylston Place, Boston, Mass.	Mech.	Railroad Postal Clerk, on N. Y., N. H. & H. R. R.
ARNOLD, CHAPIN TRAFFORD Providence.	Agr.	Electrician, Office 283 Westminster St., Room 10, Providence.
BURLINGAME, GEORGE WASHINGTON Chepachet.	Agr.	Teacher and Poultryman.
CLARK, HELEN MAY B. L., Smith College, 1899. 12 East 70 St., N. Y. City.		Private Secretary.
KNOWLES, JOHN FRANKLIN Kingston.	Mech.	Assistant Wood-Working Dept., R. I. C. A. & M. A.
MADISON, WARREN BROWN Mount Hermon, Mass.	Agr.	Instructor in Horticulture, Mount Hermon Boys' School.
MATHEWSON, ERNEST HOXSIE Ph. B., Brown University, 1896. West Appomattox, Va.	Mech.	Tobacco Expert, U. S. Department of Agriculture.
PECKHAM, REUBEN WALLACE Melville Station, Newport.	Agr.	Market Gardener.
RATHBUN, WILLIAM SHERMAN Wakefield.	Agr.	Practicing Veterinary.
RODMAN, GEORGE ALBERT Providence.	Mech.	Division Engineer's Office, N. Y., N. H. & H. R. R. Co.
SARGENT, CHARLES LAWRENCE Ph. D., University of Pennsylvania, 1900. Newark, New Jersey.	Agr.	Chemist, Murphy Varnish Co.
SLOCUM, SAMUEL WATSON 130 West Broad St., Westerly.	Agr.	Carpenter.
SPEARS, JOHN BARDEN Foster Centre.	Agr.	Farmer.

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[*] It is earnestly desired that the graduates inform the Alumni Bureau of any permanent change of address.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
Sweet, Stephen Adelbert Slocums.	Agr.	Farmer.
Tucker, George Mason Ph. D., Göttingen, 1899. Blodgett, Missouri.	Agr.	Manager, Plant-Breeding Farm.
Wilber, Robert Arthur East Greenwich.	Mech.	Express Agent.

1895.

Albro, Lester Franklin Melville Station, Newport.	Agr.	Professional Singer.
Burdick, Howland Kingston.	Agr.	Farm Superintendent, R. I. C. A. & M. A.
Clarke, Charles Sherman Jamestown.	Mech.	Marine Engineer.
Eldred, Mabel DeWitt Kingston.		Instructor in Drawing, R. I. C. A. & M. A.
Hammond, John Edward Jamestown.	Agr.	Farmer.
Oatley, Lincoln Nathan Wakefield.	Mech.	Contractor and Builder.
Scott, Arthur Curtis Ph. D., Univ. of Wisconsin, 1902. Austin, Texas.	Mech.	Professor of Electrical Engineering, Univ. of Texas.
Tefft, Jesse Cottrell Jamestown.	Mech.	Purser, Newport and Jamestown Ferryboat Co.
Winsor, Byron Edgar Coventry.	Mech.	Poultryman.

1896.

Brown, May (Mrs. Charles A. White). Narragansett Pier.		At home.
Greenman, Adelaide Maria (Mrs. R. Wallace Peckham) Melville Station, Newport.		At home.
Kenyon, Albert Louis 59 Camp St., Providence.	Mech.	Printer, Silver Spring Bleaching and Dyeing Co.
Moore, Nathan Lewis Cass Venice, Florida.	Agr.	Fruit-Grower.
Tabor, Edgar Francis 18 Balaklava St., Providence.	Mech.	Calico Printer, Silver Spring Bleaching and Dyeing Co.
Williams, James Emerson Summit.	Agr.	Grain Dealer and Teacher.

1897.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
CARMICHAEL, WELCOME SANDS Shannock.	Sci.	In Treasurer's Office, Atlantic Mills, Providence.
CASE, HERBERT EDWARDS BROWN Ph.B., Brown University, 1900. Graduate, Hartford Theological Seminary, 1904.	Mech.	Missionary, Island of Guam, U. S. A.
GRINNELL, ARCHIE FRANKLIN 85 Ninth St., Providence.	Mech.	Draughtsman.
HANSON, GERTRUDE MAIE Peace Dale.	Sci.	At home.
HOXSIE, BESSIE BAILEY (MRS. E. F. RUECKERT) 98 Melrose St., Providence.	Sci.	At home.
KENYON, ALBERT PRENTICE Ashaway.	Mech.	Bookkeeper, Maxson & Co., Westerly.
KENYON, CHARLES FRANKLIN Shannock.	Mech.	With Silver Spring Bleaching and Dyeing Co., Providence.
LARKIN, JESSIE LOUISE 98 Beach St., Westerly.	Sci.	Stenographer.
*MARSLAND, LOUIS HERBERT 193 Chestnut St., Cleveland, Ohio.	Mech.	Assistant to Resident Engineer, The Lake Shore & Michigan Southern Railway Co.
TEFFT, ELIZA ALICE Allenton.	Sci.	Teacher, Jackson College, Jackson, Miss.
*THOMAS, IRVING Allenton.	Mech.	Designer of Patterns.

1898.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
ARNOLD, SARAH ESTELLE (MRS. R. O. BROOKS) Leicester, Mass.	Sci.	At home.
BARBER, GEORGE WASHINGTON Shannock.	Agr.	Clerk.
CARGILL, EDNA MARIA 255 Main St., Pawtucket.	Sci.	Stenographer, Pawtucket Institution for Savings.
*CASE, JOHN PETER	Agr.	
CLARKE, WILLIAM CASE Wakefield.	Sci.	Secretary, Sea View Electric Railroad.
CONGDON, HENRY AUGUSTUS Kingston.	Mech.	Farmer.
FLAGG, MARTHA REBECCA Hardwick, Mass.	Sci.	At home.

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* Not heard from this year.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
HARLEY, WILLIAM FERGUSON 62 Hillside Avenue, Providence	Agr.	Salesman, with Messrs. Callender, McAuslan & Troup, Providence.
TURNER, HARRIETTE FLORENCE (MRS. GEO. M. TUCKER) Graduate, Drexel Institute, 1900, Blodgett. Missouri.	Sci.	At home.
WILSON, GRACE ELLEN (MRS. W. F. HARLEY) 62 Hillside Avenue, Providence.	Sci.	At home.

1899.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
BOSWORTH, ALFRED WILLSON Storrs, Conn.	Sci.	Expert Cheese Chemist, U. S. Dept. of Agriculture.
BROOKS, RALPH ORDWAY Leicester, Mass.	Sci.	Chemist.
GEORGE, LILLIAN MABELLE A. B., Univ. Ill, 1904. Kingston.	Sci.	Librarian, R. I. C. A. & M. A.
HARVEY, MILDRED WAYNE 123 E. Seneca St., Ithaca, N. Y.	Sci.	Private Secretary.
KENYON, BLYDON ELLERY Austin, Texas.	Agr.	Assistant in Physics, University of Texas.
KNOWLES, CARROLL 155 Benefit St., Providence.	Mech.	Draughtsman, Brown & Sharpe Mfg. Co.
KNOWLES, HARRY 155 Benefit St., Providence.	Sci.	Reporter, Providence Journal.
LADD, MERRILL AUGUSTUS Schenectady, N. Y.	Mech.	Testing Department, General Electric Co.
MORRISON, CLIFFORD BREWSTER 543 Broad St., Providence.	Sci.	Chemist City Sewerage Dept.
OWEN, WILLIAM FRAZIER Schenectady, N. Y.	Mech.	Engineering Dept., General Electric Co.
PAYNE, EBENEZER M. D., Univ. of Michigan, 1904. Great Barrington, Mass.	Sci.	Physician.
PHILLIPS, WALTER CLARKE Ph. B., Brown University, 1902. A. M., Brown University, 1903. 155 Benefit St., Providence.	Mech.	Instructor in English, Brown University.
REYNOLDS, ROBERT SPINK New London, Conn.	Mech.	Draughtsman, Bridge Dept., N. Y., N. H. & H. R. R. Co.
RICE, MINNIE ELIZABETH Wickford.	Sci.	Teacher, Jackson College, Jackson, Miss.
SHERMAN, ABBIE GERTRUDE (MRS. BENJAMIN BARTON) 200 Sherburne St., Providence.	Sci.	At home.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
Sherman, George Albert West Kingston.	Mech.	Insurance Agent.
Thompson, Sally Rodman (Mrs. Lewis Balch) Kingston.	Sci.	At home.

1900.

Brightman, Henry Maxson 1409 Majestic Bldg., Detroit, Mich.	Mech.	Michigan Representative, Buffalo Forge & Blower Co.
Cross, Charles Clark 2223 N. 13th St., Philadelphia, Pa.	Mech.	With Black Diamond File Works.
Eldred, John Raleigh 194 Vinton St., Providence.	Mech.	Draughtsman, Household Sewing Machine Co.
Fison, Gertrude Sarah 784 Prospect Place, Brooklyn, N. Y.	Sci.	Children's Librarian, Brooklyn Public Library, 234 Albany Ave., Brooklyn.
Fry, John Joseph East Greenwich.	Mech.	Suburban Correspondent for Providence Telegram.
Goddard, Edith Campello, Mass.	Sci.	Teacher, High School, Hopedale, Mass.
Kenyon, Amos Langworthy White Plains, N. Y.	Agr.	Dairyman, Gedney Farm.
Munro, Arthur Earle Ph B., Brown University, 1902. 18 Mitchell St., Providence.	Sci.	Student, Boston University Law School, Boston.
Soule, Ralph Nelson Wickford.	Sci.	Student, 201 E. St., N. W. Washington, D. C.
Steere, Anthony Enoch 317 E. Jefferson St., Boise, Idaho.	Mech.	Civil Engineer, U. S. Reclamation Service.
Stillman, Lenora Estelle 108 W. 115th St., N. Y. City.	Sci.	Teacher.
Tucker, Bertha Douglass Swansea Centre, Mass.	Sci.	Dressmaker.
Wheeler, Charles Noyes Narragansett Pier.	Sci.	With Providence Telephone Co.
Wilson, Joseph Robert Belleville.	Mech.	In Woolen Mills, J. P. Campbell.

1901.

Brayton, Charles Andrew Fiskeville.	Agr.	Farmer.
Briggs, Nellie Albertine 136 Broadway, Providence.	Sci.	Stenographer, R. I. Hospital Trust Co.
Burgess, Charles Stuart 264 Sayles St., Providence.	Mech.	Draughtsman, Brown & Sharpe Mfg. Co.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
CLARNER, LOUIS GEORGE KARL, JR. Arnold's Mills.	Sci.	Farmer.
DAWLEY, EDNA ETHEL Kenyon.	Sci.	Teacher.
DENICO, ARTHUR ALBERTUS Narragansett Pier.	Sci.	Electrician, 209 W. 108th St., N. Y. City.
*JAMES, RUTH HORTENSE (MRS. HERBERT E. ROUSE)	Sci.	
SHERMAN, ANNA BROWN 122 Fountain St., Providence.	Sci.	Stenographer, with Harness & Saddlery Co., Washington St.
SHERMAN, ELIZABETH AGNES 285 Chestnut Avenue, Jamaica Plains, Mass.	Sci.	Stenographer, with B. T. Sturtevant Co.
SMITH, HOWARD DEXTER A. M., Brown University, 1904. Tufts College, Mass.	Sci.	Instructor in Chemistry, Tufts College.
STEERE, ROENA HOXSIE 98 Fifield St., Providence.	Sci.	Stenographer, with Anthony & Cowell Co.
WILBY, JOHN Central, Missouri.	Sci.	Supply Clerk, Central Lead Co.

1902.

CLARKE, LATHAM A. M., Brown University, 1903. Boylston Hall, Cambridge, Mass.	Chem.	Graduate Student and Assistant in Chemistry, Harvard University.
FERRY, OLIVER NEEDHAM 8 Armington Ave., Providence.	Mech.	Draughtsman, D. & W. Fuse Co.
MAXSON, RALPH NELSON Kent Chemical Laboratory, New Haven, Connecticut.	Chem.	Graduate Student, Yale University.
PITKIN, ROBERT WILLIAM Rockville, Conn., R. F. D. No. 1.	Mech.	Farmer.

1903.

BARBER, KATE GRACE 136 Division St., New Haven, Conn.	Gen. Sci.	Student Assistant, Conn. Exp. Station.
CONANT, WALTER AIKEN Omaha, Neb.	Agr.	Alamito Sanitary Dairy Co.
GODDARD, WARREN Campello, Mass.	Mech.	Student, New Church Theological School, Cambridge, Mass.
KEEFER, EDITH CECELIA 832 East Grand Avenue, Des Moines, Iowa.	Biol.	Teacher of Science.

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* Deceased.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
KENT, RAYMOND WARREN . . . A. M., Harvard University, 1904. 32 Irving St., Cambridge, Mass.	Chem.	Graduate Student, Harvard University.
TEFFT, ERNEST ALLEN . . . 133 Fountain St., Providence.	El. Eng.	Electrician.

1904.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
BALLOU, WILLARD ALGER . . . . New London, N. H.	Biol.	Instructor in Natural Science, Colby Academy.
QUINN, MARY LOUISE . . . . . Mason City, Iowa.	Biol.	Teacher of Science, High School.
RODMAN, WALTER SHELDON . . Kingston.	El. Eng.	Instructor in Physics and Electrical Engineering, R. I. C. A. & M. A.

INDEX.

PAGE.

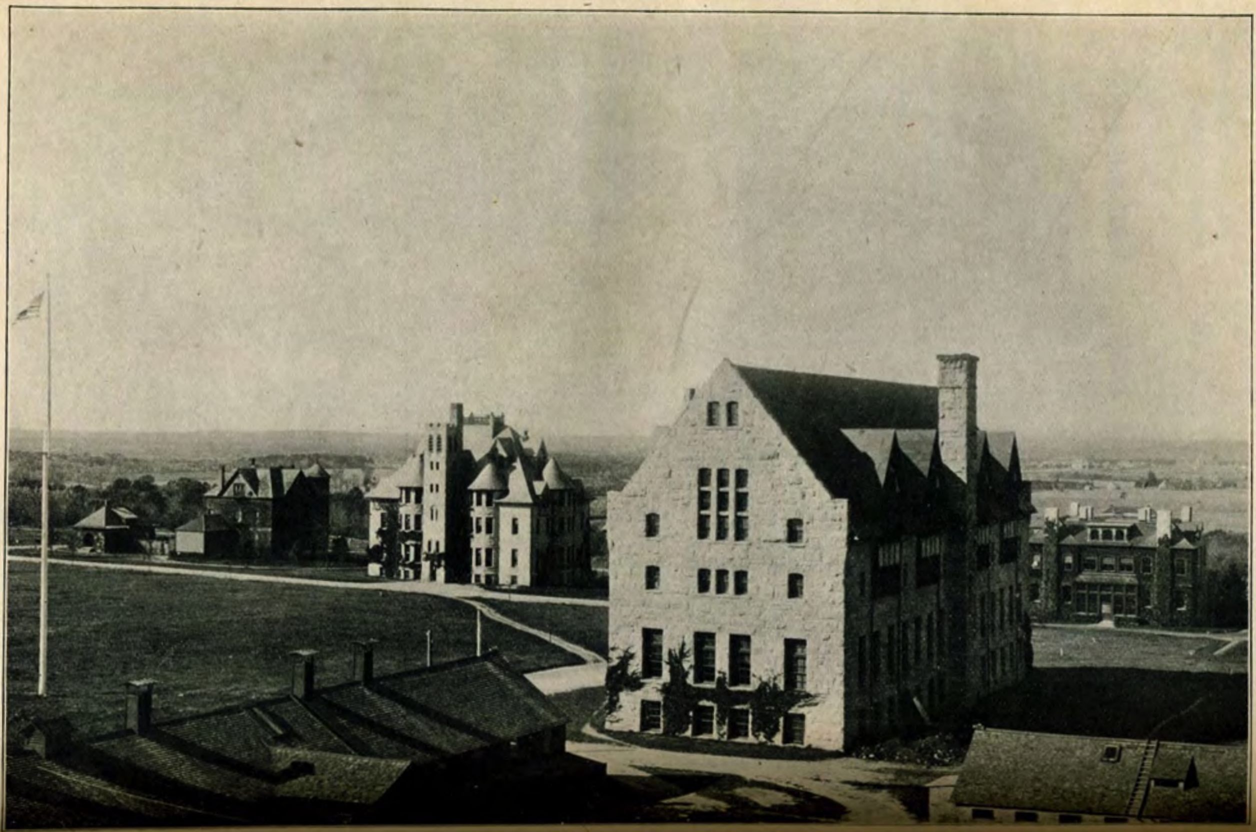
- Absences, unexcused 23
- Admission 17
  - advanced standing 19
  - agricultural high school 68
  - certificate 17
  - college 17
  - examination 18
  - farm-practice course 37
  - industrial high school 72
  - poultry-keeping course 37
  - preparatory school 65
  - special courses 16
- Agricultural high school 16
  - admission 68
  - course 68–71
  - scope 68
- Agricultural experiment station,
  - establishment 13
  - publications 12
  - staff 12
- Agriculture 36
  - college course 56–61
  - extension work 77
  - high school 16, 68
  - special students 17
- Alumni association 81
  - list 86
- Anatomy 35
- Athletics 24
- Biology, animal 34
  - plant 32
- Board of managers 3
- Boarding expenses 19–22
- Botany 32
- Bulletins of experiment station 12
- Calendar 10
- Certificate, admission by 17
- Chemistry 28
  - course 56–61

PAGE.

- Church attendance 25
- College, history 13
  - location 27
  - object 14
- Conditions 23
- Courses of study 15
  - agriculture 56–61
  - biology 56–61
  - chemistry 56–61
  - electrical engineering 56–61
  - general science 56–61
  - highway engineering 56–61
  - mechanical engineering 56–61
  - special courses 16
- Dairy building 14
- Damage fund 22
- Degree 15, 28
- Departments of instruction 28
- Deposit 21
- Dormitories 19, 21
- Drawing, freehand 53
  - mechanical 47, 53
- Drill, hall 14
  - military 54
- Economics agricultural 44
- Electrical engineering 49
  - course 56–61
- Embryology 35
- English 41
- Entomology 35
- Examinations,
  - conditioned students 24
  - dates 11
  - entrance 11
- Expenses 19–22
- Experiment station, staff 12
  - bulletins 12
- Extension work 77
- Faculty and other officers 5

PAGE.
Farm-mechanics course........... 17
Farm-practice course............. 36
Forestry........................ 40
French.......................... 42
Fees, laboratory, etc............ 20
Furniture....................... 21
Geology......................... 31
German.......................... 42
Government...................... 43
Graduation requirements......... 15
Graduates, list................. 86
Highway engineering............. 51
    course....................56–61
Histology, animal............... 35
    plant....................... 33
History......................... 43
Holidays........................ 11
Horticulture.................... 39
Industrial high school.......... 16
    admission................... 72
    course...................... 73
    scope....................... 72
Laboratory fees................. 20
Landscape-gardening............. 40
Languages....................... 41
Latin........................... 43
Lecture association, R. I. C....... 26
Lecturers, non-resident,
    short-course................ 9
    Thursday.................... 25
Library......................... 26
Mathematics..................... 44
Mechanical engineering.......... 46
    course....................56–61
Military science and tactics....... 54
    requirements................ 54
    uniform..................... 21
Mineralogy...................... 31
Mines, school of................ 14

PAGE.
Nature guard.................... 78
Physics......................... 31
Physiology...................... 35
Political economy............... 44
Poultry-keeping................. 37
Preparatory school.............. 16
    admission................... 65
    course....................66–67
    scope....................... 65
Psychology...................... 35
Publications, student........... 24
Reading-room.................... 26
Registration.................... 24
Regulations of college.......... 23
Religious influences............ 25
    organizations............... 25
Rhetoric........................ 41
Rooms in village................ 21
Self-help....................... 22
Sociology, rural................ 44
Special courses................. 16
Stenography and typewriting...... 54
Store, college.................. 22
Students, boarding.............. 21
    day......................... 21
    list........................ 82
    number...................... 85
Thesis.......................... 24
Tuition......................... 20
Typewriting..................... 54
Uniform......................... 21
Women, expenses................. 19
    opportunities for........... 19
Work, for students.............. 22
Worship, public................. 25
Y. M. C. A...................... 81
Y. W. C. U...................... 81
Zoölogy......................... 34



GENERAL VIEW OF MAIN BUILDINGS.

EIGHTEENTH ANNUAL REPORT

OF THE

Corporation, Board of Managers

OF THE

Rhode Island College of Agriculture and Mechanic Arts,

MADE TO THE

General Assembly at its January Session, 1906.

PART III—CATALOGUE.

Part I—General Report for the Year—is printed under separate cover.

Part II—Experiment Station Report—is printed under separate cover.

Providence, R. I.
E. L. Freeman & Sons, Printers to the State,
1906.

Rhode Island College of Agriculture and Mechanic Arts.

Corporation.

Hon. ROBERT S. BURLINGAME	Newport County.
Hon. C. H. COGGESHALL	Bristol County.
Hon. CHARLES DEAN KIMBALL	Providence County.
Hon. THOMAS G. MATHEWSON	Kent County.
Hon. J. V. B. WATSON	Washington County.

Officers of the Corporation.

Hon. CHAS. DEAN KIMBALL, President	P. O., Providence, R. I.
Hon. C. H. COGGESHALL, Clerk	P. O., Bristol, R. I.
Hon. C. H. COGGESHALL, Treasurer	P. O., Newport, R. I.

Report.

To His Excellency George H. Utter, Governor, and the Honorable General Assembly of the State of Rhode Island and Providence Plantations, at its January Session, 1906:

I have the honor to submit herewith Part Three of the Eighteenth Annual Report of the Board of Managers of the Rhode Island College of Agriculture and Mechanic Arts, as required by law.

CHARLES DEAN KIMBALL,

President of the Board of Managers of the Rhode Island College of Agriculture and Mechanic Arts.

Faculty and Other Officers.

KENYON LEECH BUTTERFIELD, A. M.,*

PRESIDENT

Professor of Political Economy and Rural Sociology,

B. S., Michigan Agricultural College, 1891; Assistant Secretary, Michigan Agricultural College, 1891–1892; Editor, Michigan "Grange Visitor," 1892–1896; Superintendent, Michigan Farmers' Institutes, 1895–1899; Field Agent, Michigan Agricultural College, 1896–1899; Graduate student, University of Michigan, 1900–1902; A. M., University of Michigan, 1902; Instructor in Rural Sociology, University of Michigan, 1902; Entered upon duties as President, April 1, 1903.

HOMER JAY WHEELER, PH. D.,

Professor of Geology and Agricultural Chemistry,

B. S., Massachusetts Agricultural College, 1883; Assistant Chemist, Massachusetts State Experiment Station, 1883–1887; Graduate student, University of Göttingen, 1887–1889; Ph. D., Göttingen, 1889; Appointed Chemist of Rhode Island Agricultural Experiment Station and Professor of Geology, 1890; Acting President, August 15, 1902–April 1, 1903.

E. JOSEPHINE WATSON, A. M.,

Professor of Languages,

A. B., Smith College, 1882; A. M., Cornell University, 1883; Assistant in English, Smith College, 1883–1887; Student of North European Languages in Göttingen, 1887–1889; Appointed Professor of Languages, September, 1892; Student of French in Tours, summer of 1895.

WILLIAM ELISHA DRAKE, B. S.,

Professor of Mechanical Engineering,

B. S., Polytechnic Institute, Worcester, 1886; Instructor in Physics and Electricity, Worcester Polytechnic Institute, 1887; Instructor in Woodworking at Pratt Institute, Brooklyn, 1887–1893; Appointed Professor of Mechanical Engineering, 1893.

HARRIET LATHROP MERROW, A. M.,

Professor of Botany,

B. S., Wellesley College, 1886; Teacher of Science, Plymouth (Mass.) High School, 1887–1888; Teacher of Science, Harcourt Place, Gambier, O., 1888–1891; Graduate student, University of Michigan, 1891–1892; A. M., Wellesley College, 1893; Graduate assistant, Botanical Laboratory, University of Michigan, 1893–1894; Appointed Professor of Botany, January, 1895.

All salaries of members of the faculty are paid from United States funds.

**Resigned. Resignation to take effect June* 30.

FRED WALLACE CARD, M. S.,

Professor of Agriculture.

B. S., Cornell University, 1892; M. S., Cornell University, 1893; Assistant Horticulturist, Cornell University Experiment Station, 1893; Associate Professor of Horticulture, University of Nebraska, 1893–1898; Appointed Professor of Horticulture, 1898.

COOPER CURTICE, D. V. S., M. D.,

Professor of Animal Industry,

B. S., Cornell University, 1881; D. V. S., Columbia Veterinary College, N. Y., 1883; M. D., Columbian University, Washington, D. C., 1887; Assistant Paleozoic Paleontologist, U. S. Geological Survey, 1883–1886; Specialist, Department of Agriculture, Washington, D. C., 1886–1892; Veterinarian, State Board of Health, N. Y., 1892–1894; Tuberculosis Specialist, U. S. Department of Agriculture, Washington, D. C., 1895–1896; Professor of Zoölogy, North Carolina College of Agriculture and Mechanic Arts, 1898; State Veterinarian, North Carolina, 1899; Appointed Professor of Zoölogy, 1900; Professor of Animal Industry, 1902.

VIRGIL LOUIS LEIGHTON, Ph. D.,

Professor of Chemistry,

A. B., Tufts College, 1894; A. M., Kansas State University, 1895; Ph. D., Tufts College, 1897; Instructor in Organic Chemistry, Tufts College, 1897–1901; Appointed Associate Professor of Chemistry, 1901; Professor, 1903.

JOHN BARLOW, A. M.,

Professor of Zoölogy.

B. S., Middlebury, 1895; A. M., Brown University, 1896; Assistant Biologist, R. I. Experiment Station, 1898; Professor of Biology, Fairmount College, 1898–1901; Appointed Professor of Zoölogy, 1901.

GILBERT TOLMAN, A. M.,

Professor of Physics and Electrical Engineering,

B. M. E., University of Maine, 1896; Instructor in Physics and Physical Geography, Shaw University (Raleigh, N. C.), 1896–1900; A. M., Columbia University (New York City), 1901; Assistant, Department of Physics, Columbia University, 1901–1903; Appointed Professor of Electrical Engineering, 1903.

ROBERT HILEMAN LEE, M. S.,

Professor of Mathematics and Highway Engineering, and Instructor in Military Science and Tactics,

B. S., Ohio Northern University, 1893; M. S., Ohio Northern University, 1896; Superintendent of Township Schools, Clyde, Ohio, 1896–1898; Principal High School, Danbury, Ohio, 1899–1900; Principal High School, Port Clinton, Ohio, 1900–1902; with the Osborn Engineering Company, Cleveland, Ohio, season of 1903; with the Bridge Department of Lake Shore and Michigan Southern Railway, Cleveland, season of 1904; B. S., in Civil Engineering, Case School of Applied Science, 1905; Appointed Professor, 1905.

All salaries of members of the faculty are paid from United States funds.

THOMAS CARROLL RODMAN,

Instructor in Woodwork,

Appointed, 1890.

MABEL DEWITT ELDRED, B. S.,

Instructor in Drawing,

B. S., R. I. College of Agriculture and Mechanic Arts, 1895; Appointed Instructor in Drawing, 1897.

MARSHALL HENRY TYLER, B. S.,

Instructor in Surveying and Master of the Preparatory School,

B. S., Amherst College, 1897; Instructor at St. Mark's, 1897–1898; Appointed Master of the Preparatory School, 1898.

ELIZABETH WATSON KENYON, A. M.,

Instructor in Languages and History,

B. S., Mt. Holyoke College, 1896; A. M., Brown University, 1897; Instructor in English and History, Middleborough (Mass.) High School, 1898–1900; Appointed Instructor in Languages and History, 1900.

HOWLAND BURDICK, B. S.,

Instructor in Dairying and Farm Superintendent,

B. S., R. I. College of Agriculture and Mechanic Arts, 1895; Appointed Assistant in Agriculture, 1897; Appointed Instructor in Agriculture and Farm Superintendent, 1900.

JOSEPHINE OSBORNE BOSTWICK, A. B.,

Instructor in Languages,

A. B., Acadia College, 1901; Assistant in English Branches, Acadia Seminary (Wolfville N. S.), 1902–1903; Appointed Instructor in Languages, 1903.

WALTER SHELDON RODMAN, B. S.,

Instructor in Physics and Electrical Engineering,

B. S., R. I. College of Agriculture and Mechanic Arts, 1904; Appointed Instructor in Physics and Electrical Engineering, 1904.

MAURICE ADIN BLAKE, B. S.,*

Instructor in Horticulture,

B. S., Massachusetts Agricultural College, 1904; Appointed Instructor in Horticulture, 1904.

LILLIAN EDNA TOLMAN,

Instructor in Stenography and Typewriting,

Appointed, 1905.

All salaries of members of the faculty are paid from United States funds.

**Resigned September* 30, 1905.

AN APPROACH TO THE COLLEGE

HUGH LESTER BARNES, B. S.,

Instructor in Horticulture,

B. S., Massachusetts Agricultural College, 1905; B. S., Boston University, 1905; Appointed Instructor in Horticulture, 1905.

JAMES GARFIELD HALPIN, B. S. A.,

Instructor in Poultry-Keeping,

B. S. A., Cornell University, 1905; Assistant in Poultry Husbandry and Instructor to Short Course Students, Cornell University, 1905; Appointed Instructor in Poultry Keeping, 1905.

JOHN FRANKLIN KNOWLES, B. S.,

Assistant in Woodwork.

GEORGE BURLEIGH KNIGHT,

Assistant in Ironwork.

LILLIAN MABELLE GEORGE, B. S.,

Librarian.

ANDREW EDWARD STENE, M. S.,

Superintendent of College Extension,

B. S., University of Minnesota, 1897; Principal of Schools, Ashby (Minn.), 1897-1901; M. S., Cornell University, 1902; Appointed Assistant in Horticulture, 1903; Appointed Superintendent of College Extension, April 1, 1904.

LUCY COMINS TUCKER,

Secretary to the President.

HARRIET MAUD ADAMS,

Bookkeeper.

SARAH B. BREED,

Matron of the Boarding Hall.

All salaries of members of the faculty are paid from United States funds.

Lectures.

Poultry Course, 1906.

C. Z. Davis, Buffalo, N. Y., INCUBATION. One lecture.

I. K. Felch, Natick, Mass., STANDARD POULTRY, JUDGING, and JUDGING PRACTICE. One week.

A. F. Hunter, Roxbury, Mass., EGG PRODUCTION AND MARKET POULTRY. One week.

J. Alonzo Jocoy, Wakefield, R. I., BROILERS AND EGG PRODUCTION. Two lectures.

D. J. Lambert, Apponaug, R. I., HOW TO ESTABLISH A BUSINESS, AMERICAN BREEDS. One week.

V. L. Leighton, Kingston, R. I., FOUR YEARS' ACCOUNTS OF THE POULTRY YARD. One lecture.

Joseph McArdle, Cambridge, Mass., DEMONSTRATIONS OF PICKING AND DRESSING POULTRY. Two days.

W. D. Rudd, Boston, Mass., THE POULTRY MARKET. One lecture.

E. C. Tefft, Wakefield, R. I., NATURAL INCUBATION, BROODING AND REARING, ASIATIC BREEDS. Six lectures.

Thomas Wright, Marlboro, Mass., SQUAB RAISING. Three lectures.

CALENDAR.

1905.

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JULY.	..	..	..	..	..	..	1
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1906.

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MAY.	..	..	1	2	3	4	5
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JUNE.	..	..	..	..	..	1	2
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JULY.	1	2	3	4	5	6	7
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AUG.	..	..	..	1	2	3	4
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1907.

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MAY.	..	..	..	1	2	3	4
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College Calendar.

1905.

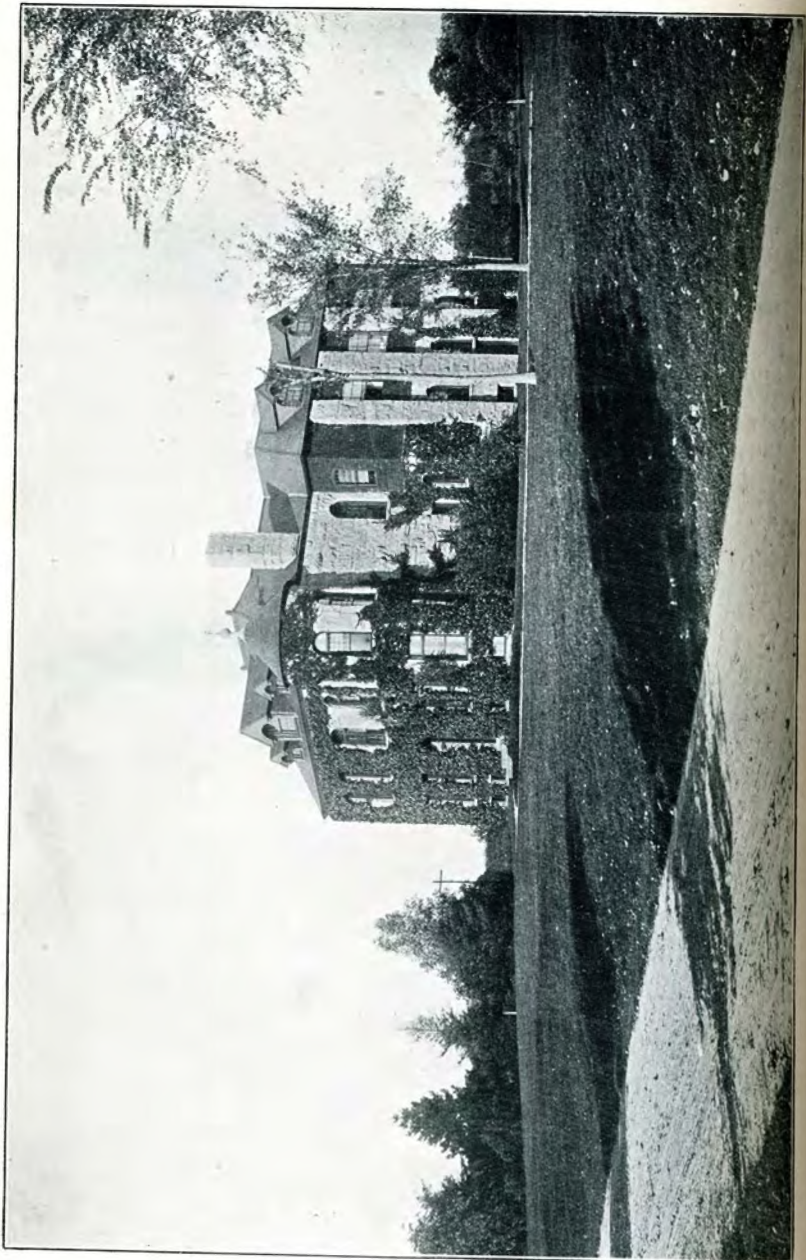
Monday, September 11 ....
Examinations for Entering and Conditioned Students at 1 P. M.
Tuesday, September 12.. ....
Examinations for Entering and Conditioned Students at 9 A. M.
Wednesday, September 13, Fall Term begins at 9 A. M.; Registration at 9:30 A. M.
Thursday, September 14 .... Classes as per Schedule.
Tuesday, November 7 .... Election Day.
Wednesday, November 29, 12 M. }
Tuesday, December 5, 8:30 A. M. } .... Thanksgiving Recess.
Wednesday, December 20 .... Fall Term ends at 4:15 P. M.

1906.

Tuesday, January 2 .... Examinations at 9 A. M.
Wednesday, January 3, Winter Term begins at 9 A. M.; Registration at 9:30 A. M.
Sunday, February 11 .... Day of Prayer for Colleges.
Thursday, February 22 .... Washington's Birthday.
Tuesday, March 27 .... Winter Term ends at 4:15 P. M.
Tuesday, April 3 .... Examinations at 9 A. M.
Wednesday, April 4, Spring Term begins at 9 A. M.; Registration at 9:30 A. M.
Friday, May 11 .... Arbor Day.
Wednesday, May 30 .... Memorial Day.
Sunday, June 10 .... Baccalaureate Address.
Tuesday, June 12 .... Commencement Exercises.
Friday, June 15 .... Entrance Examinations at 9 A. M.
Monday, September 10 ....
Examinations for Entering and Conditioned Students at 1 P. M.
Tuesday, September 11.. ....
Examinations for Entering and Conditioned Students at 9 A. M.
Wednesday, September 12, Fall Term begins at 9 A. M.; Registration at 9:30 A. M.
Thursday, September 13 .... Classes as per Schedule.
Tuesday, November 6 .... Election Day.
Wednesday, November 28, 12 M. }
Tuesday, December 4, 8:30 A. M. } .... Thanksgiving Recess.
Friday, December 21 .... Fall Term ends at 4:15 P.M.

1907.

Wednesday, January 2 . . . . Examinations at 9 A. M.
Thursday, January 3, Winter Term begins at 9 A. M.; Registration at 9:30 A. M.
Sunday, February 10 . . . . Day of Prayer for Colleges.
Friday, February 22 . . . . Washington's Birthday.
Tuesday, March 26 . . . . Winter Term ends at 4:15 P. M.
Tuesday, April 2 . . . . Examinations at 9 A. M.
Wednesday, April 3, Spring Term begins at 9 A. M.; Registration at 9:30 A. M.
Friday, May 10 . . . . Arbor Day.
Thursday, May 30 . . . . Memorial Day.
Sunday, June 9 . . . . Baccalaureate Address.
Tuesday, June 11 . . . . Commencement Exercises.
Friday, June 14 . . . . Entrance Examinations at 9 A. M.



THE EXPERIMENT STATION.

Experiment-Station Council.

Kenyon L. Butterfield, A. M.	President of the College. *Ex officio* Member.
H. J. Wheeler, Ph. D.	Director, Chemistry and Agronomy.
Fred W. Card, M. S.	Horticulture.
Cooper Curtice, D. V. S., M. D.	Animal Husbandry.
Burt L. Hartwell, Ph. D.	Associate, Chemistry.
George E. Adams, B. S.	Associate, Agronomy.
Matthew Steel,*M. S.	First Assistant, Chemistry.
H. L. Barnes, B. S.	Assistant, Horticulture.
W. F. Kirkpatrick, † B. Agr., B. E.	Assistant, Animal Husbandry.

Other Members of the Station Staff.

J. P. Gray, B. S.	Assistant, Chemistry.
P. H. Wessels, B. S.	Assistant, Chemistry.
Nathaniel Helme	Meteorology.
Beulah A. Hoitt	Stenographer and Accountant.
E. Elizabeth Meears	Stenographer and Librarian.

The publications of the station will be mailed free on request to any one in Rhode Island interested in agriculture. The station desires the co-operation of the farmers of the state in the work of investigation, and any facts of special interest concerning animal or vegetable growth or disease are solicited. Visitors are always welcome. Railway station, telegraph, express, and post office—Kingston, Rhode Island. Long distance telephone, Narragansett Pier exchange.

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*Appointed expert in the Bureau of Soils of the Department of Agriculture, Washington, D. C., though still located at this station engaged in co-operative work between the Bureau and the station.

†Expert in the Bureau of Animal Industry, U. S. Department of Agriculture. Engaged in co-operative work between the Bureau and the station.

The College.

History.

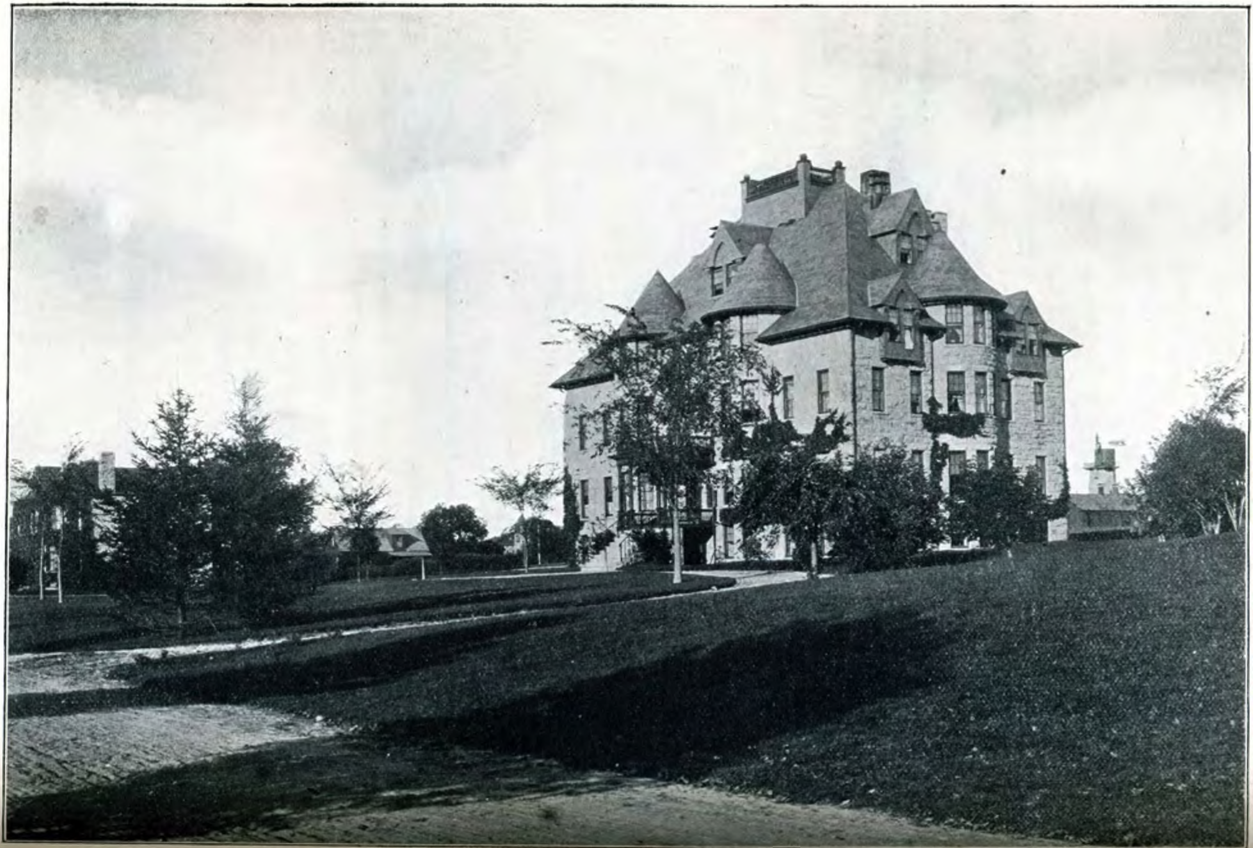
In 1863 the state of Rhode Island accepted from the United States Government the land grant scrip, which gave to each state thirty thousand acres of the public lands for each senator and representative in Congress. The land was to be sold by the states or their agents, the proceeds arising from the sale invested, and the annual income derived therefrom was to be "inviolably appropriated by each state which may take and claim the benefit of this act, to the endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to Agriculture and Mechanic Arts, in such manner as the legislatures of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."

On March 2, 1887, the act known as the Hatch Act was passed, appropriating $15,000 annually to each state, for the purpose of establishing an Agricultural Experiment Station in connection with an Agricultural College or School. Such an Agricultural School was provided for by Chapter 706 of the Public Laws, passed May 23, 1888.

The United States Congress, on August 30, 1890, passed an act known as the New Morrill Bill. This appropriated for the further support of the agricultural and mechanical colleges a sum beginning with $15,000 and continuing, with a yearly increase of $1,000, until the annual appropriation should reach $25,000.

That the school already established might receive the benefit of the act of Congress, the General Assembly amended Chapter 706 of the Public Laws, incorporating the Rhode Island College of Agriculture and Mechanic Arts.

Since September, 1892, the institution has been conducted on a college basis, with an entirely new course of study.



DAVIS HALL.

On April 19, 1894, the legislature passed an act authorizing the state treasurer to pay Brown University the sum of $40,000, in consideration of which the university was to turn over to the state the proceeds of the original land grant of 1862 and to withdraw from the United States Supreme Court its suit for the Morrill fund.

On January 27, 1895, the college dormitory was destroyed by fire; but it was replaced by a new granite building, which was ready for use the first of October of the same year, and was called Davis Hall.

At the January session of the legislature, 1897, the institution was given an appropriation for a stone building, one hundred and thirty feet by forty feet, practically three stories high. The basement is used for instruction in physics and electrical engineering. On the second floor are recitation-rooms, chapel, library, and reading-room, and young women's study-room. The third floor contains a large hall for drill and gymnasium purposes, above which are bath-rooms and lockers. The hall is also used for assemblies whenever larger audiences are expected than the chapel can accommodate. This building is called Lippitt Hall.

In 1898 an excellent dairy barn was erected. This has given the agricultural department increased facilities for instruction.

On May 8, 1901, the Board of Managers established a school of mines, to be connected with the school of mechanical and electrical engineering. The courses of instruction for the Freshman and Sophomore years of this school have already been arranged, and are identical with the courses given in the mechanical and electrical engineering school. The courses for the Junior and Senior years will be made ready for publication as soon as sufficient funds are at hand to put them into effect.

At the winter session of 1905 the legislature appropriated $5,000 for a poultry plant. The equipment consists of two kinds, the general equipment of the college and the special equipment of the new poultry plant. In the first are included the carpenter shop, draughting-room, lecture rooms, zoölogical laboratories, and the library; in the second, one large house, 30 by 40 ft. with incubator room and lecture room, one brooder house 96 ft. by 19 ft., equipped with eighteen individual brooders, one feeding-house 50 ft. by 16 ft., one repair shop and picking-house, ten colony houses, and various other paraphernalia.

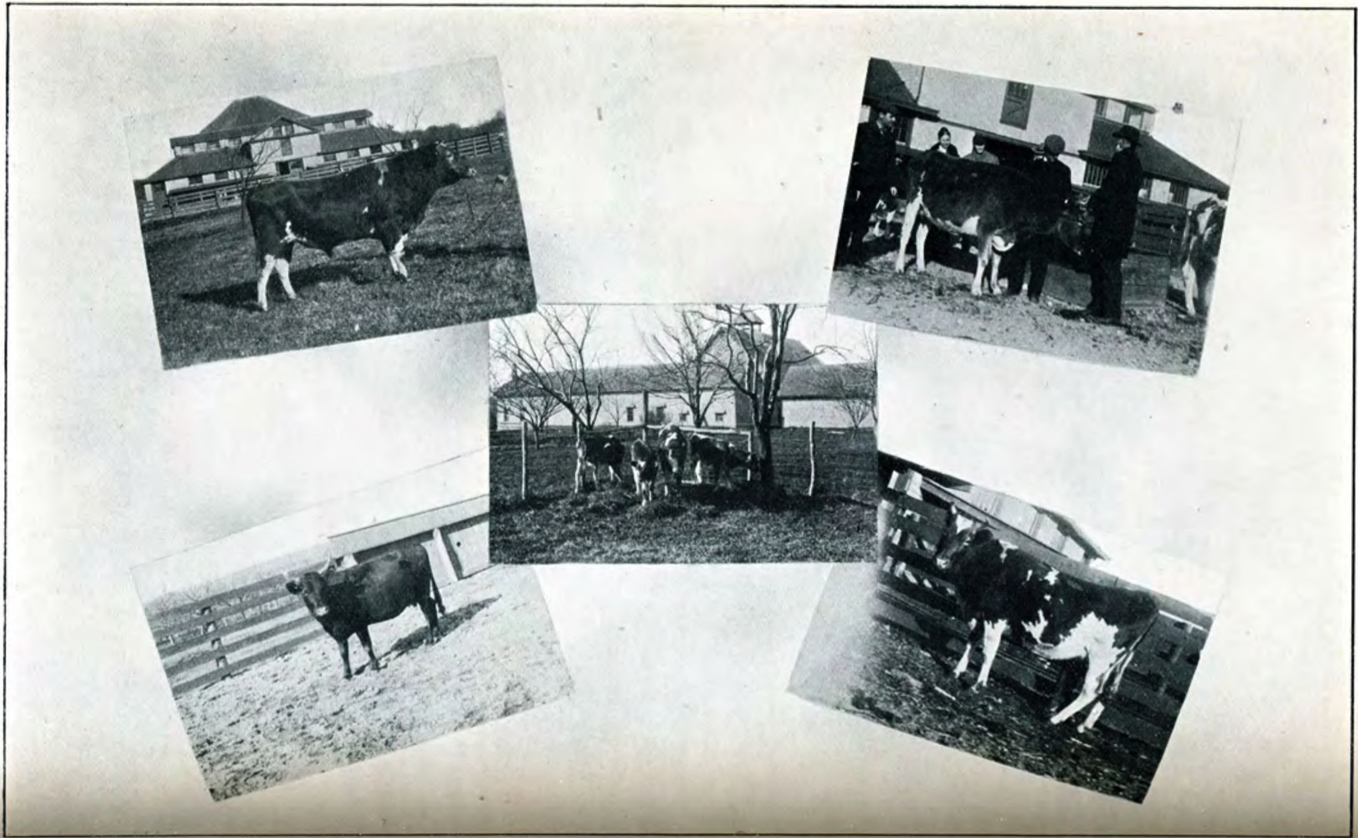
In the spring the legislature passed an act appropriating the sum of $15,000 for the erection of a greenhouse. The funds for this purpose, which became available January 1, 1906, will provide for a much needed addition to the college equipment. It is expected that this will make possible the erection of about 10,000 square feet of glass, accompanied by a suitable building for instructional purposes, in these lines.

Object of the College.

The Rhode Island College of Agriculture and Mechanic Arts is an integral part of the school system of the state. Young men and young women from the high schools are admitted to the privileges of the institution without charge for tuition. The object of the college is to prepare young people to take active part in the agricultural, manufacturing, and commercial development of the state. To this end, technical instruction in the sciences and mechanic arts is the fundamental work of the institution. In order that specialization may not be premature, technical instruction in the various courses is accompanied by instruction in languages, history, political science, and mathematics.

There are seven courses leading to the degree of Bachelor of Science: agriculture, mechanical engineering, electrical engineering, highway engineering, chemistry, biology, and general science. Certain courses are chosen in the Freshman year, others in the Sophomore year; and at the beginning of the Junior year, each student has selected the particular course in which he hopes to take a degree.

The aim of the agricultural course is to fit students not only for practical agriculture but for positions in experiment stations and as teachers. To this end, thorough instruction is given in science and the application of its principles to agriculture, supplemented by a general training in mathematics and languages. The mechanical course is intended for those wishing to become mechanical engineers, as the electrical course is designed to train electrical engineers. The course in highway engineering is designed to equip students as practical working highway engineers. The instruction given is essentially civil engineering adapted to highway construction. The chemical course offers several special lines of work. A student may prepare himself to become a general chemist or a teacher; may specialize in agricultural chemistry with a view to experiment-



SOME MEMBERS OF THE HERD.

station work; or may elect industrial chemistry with the idea of obtaining a position in a factory, dyeing establishment, or along other technical lines. In the course in biology the student may take his major work in animal or in plant biology. The course offers special inducements as a preparation for the medical or veterinary school, or training-school for nurses. It is likewise adapted to fit one to become a teacher, an assistant in an experiment station, or to take a government position in some biological line of work. The general science course, as the name implies, is not so special as the other courses. It offers a number of electives in history, the modern languages, and art. It is designed for those who wish a good general education in preparation for any line of life-work which they may follow. In the Senior year every student is required to prepare a thesis or report on some subject connected with the work of the course which he has chosen.

Preparatory Course.

Young men and young women who have had no opportunity to receive high-school instruction may enter this department to prepare for the college.

For entrance requirements and course of study, see pages 67–69.

Industrial High School.

Students unable to pursue the regular college mechanical engineering course of four years, may take in connection with the preparatory school a two-years' course along one of the following industrial lines: carpentry, machine shop, mechanical draughting, steam engineering.

For details regarding this course, see pages 70–71.

Special Courses.

Whenever possible, students are urged to enter one of the courses leading to a degree. The arrangement of these courses is the result of careful thought and long experience as to the best combination of studies to fit one for the various occupations in which a technical education is required; and it is believed that no such thorough preparation can be obtained from special courses selected by the student.

However, any courses described in this catalogue may be taken by special students of maturity, who can satisfy the professor in charge of the subject chosen that they are prepared to derive benefit from such work.

Special Students in Agriculture.

Students having a working knowledge of the English branches may enter the college without examination and take those subjects which will prove of most direct benefit to them in the work of the farm. One or two years can thus be spent with excellent results. A certificate will be granted at the end of the time, showing the work covered.

Among the subjects which might be included are agricultural soils, plant life, drainage, agricultural implements and apparatus, farm fertility and its maintenance, field crops, breeds of farm animals, stock-breeding, feeding of farm animals, dairy-husbandry, poultry-raising, farm accounts, social problems of the farmer, the principles of horticulture, fruit-growing, vegetable-gardening, landscape-gardening, physiology, entomology, bench-work, wood-turning, and forging. In connection with the above, other subjects for which the student is fitted may be taken. The study of English should generally be included.

A special course in poultry-keeping is offered during the winter term. Payment of tuition fees for those outside the state and board for the full time is required in advance of students registering in the short special courses. Those interested in these courses will please send for circulars giving full description of them. Address the president.

Requirements for Admission to the College, 1906.

Graduates from high schools, and other schools of similar grade, are admitted without examination, on certificates which are filled out by their principals. The candidate must apply to the college for the certificate, giving the address of his principal who is to certify him. The college will correspond with the principal, furnishing blanks for him to fill. Graduates from high schools are not admitted on diploma. Satisfactory evidence as to good moral character must be presented to the committeee on entrance examinations.

Candidates for admission who are not graduates of high schools must in all cases supply a statement of such school records as they may have made, and also a certificate or testimonial of good moral character. The latter may be from some recent teacher, from a pastor, or from other responsible persons.

Candidates not entering the Freshman class on certificate will be examined in arithmetic; algebra; plane geometry; English grammar; advanced English; one year of German, French, or Latin; one year of science and one year of history or their equivalents.

In the arithmetic examination especial attention will be paid to fractions, the metric system, simple and compound proportion, and square root; thorough drill in mental arithmetic will be necessary. The applicant should have mastered all of Wentworth's School Algebra as far as page 293, and Wells's Plane Geometry, or their equivalents.

The English requirements are those prescribed for entrance to the New England colleges. The student will be expected to show familiarity with the works named below. These are divided into two classes. Those marked (*a*) are to be read, and the candidate will be required to show a general knowledge of their subject-matter and of the lives of the authors. Those marked (*b*) are to be thoroughly studied, so that the candidate will be able to passan examination upon their subject-matter and structure. To be acceptable, the candidate's paper must show a good knowledge of spelling, capitalization, punctuation, sentence and paragraph structure. The books prescribed for 1906–1908 are the following: (a) The Sir Roger de Coverley Papers; Coleridge's The Ancient Mariner; Eliot's Silas Marner; Irving's Life of Goldsmith; Lowell's The Vision of Sir Launfal; Scott's Ivanhoe and The Lady of the Lake; Shakespeare's Macbeth, and The Merchant of Venice; Tennyson's Idyls of the King. (*b*) Burke's Speech on Conciliation with America; Macaulay's Essay on Milton, and Life of Johnson; Milton's L'Allegro, Il Penseroso, Comus, and Lycidas; Shakespeare's Julius Cæsar.

The language requirements cover one year's work in either French, German, or Latin; and Latin is recommended. In French and German this requirement comprises the essentials of grammar, easy reading, and elementary composition. In Latin the candidate must be prepared to study Cæsar. The following text-books are recommended: Chardenal's Complete French Course or Longman's French Grammar (Complete Edition), Super's French Reader or Aldrich and Foster's; the Joynes-Meissner German Grammar, Part I, Collar's Shorter Eysenbach or Lange's German Method for Beginners, Guerber's Märchen und Erzählungen, Part I, or about one hundred and fifty pages of easy reading; Collar and Daniell's First Latin Book, or Lindsay and Rollins's Easy Latin Lessons.

Candidates may enter any of the higher classes for which they are prepared.

Opportunities Offered to Women.

The courses of instruction are open to men and women alike. The women's dormitory will accommodate a limited number of students, and the college will on application find boarding-places for others in private families in town. Special waiting and study-rooms are provided for the women who are day students.

Expenses for Women.

Room-rent is $8.00 a term, and includes heating and lights, Rooms are provided with necessary furniture, including mattresses, but no other bedding material. Other expenses are as given below. The women have an opportunity to do their own washing and ironing. A Singer and a Household sewing-machine are at the disposal of all those living at the dormitory.

*Expenses.

Tuition is free to residents of Rhode Island. To non-residents, tuition is $10.00 a term, or $30.00 a year.

The regular college expenses are tabulated below. Students should add a sum varying from $10.00 to $25.00 per year for miscellaneous expenses connected with college life.

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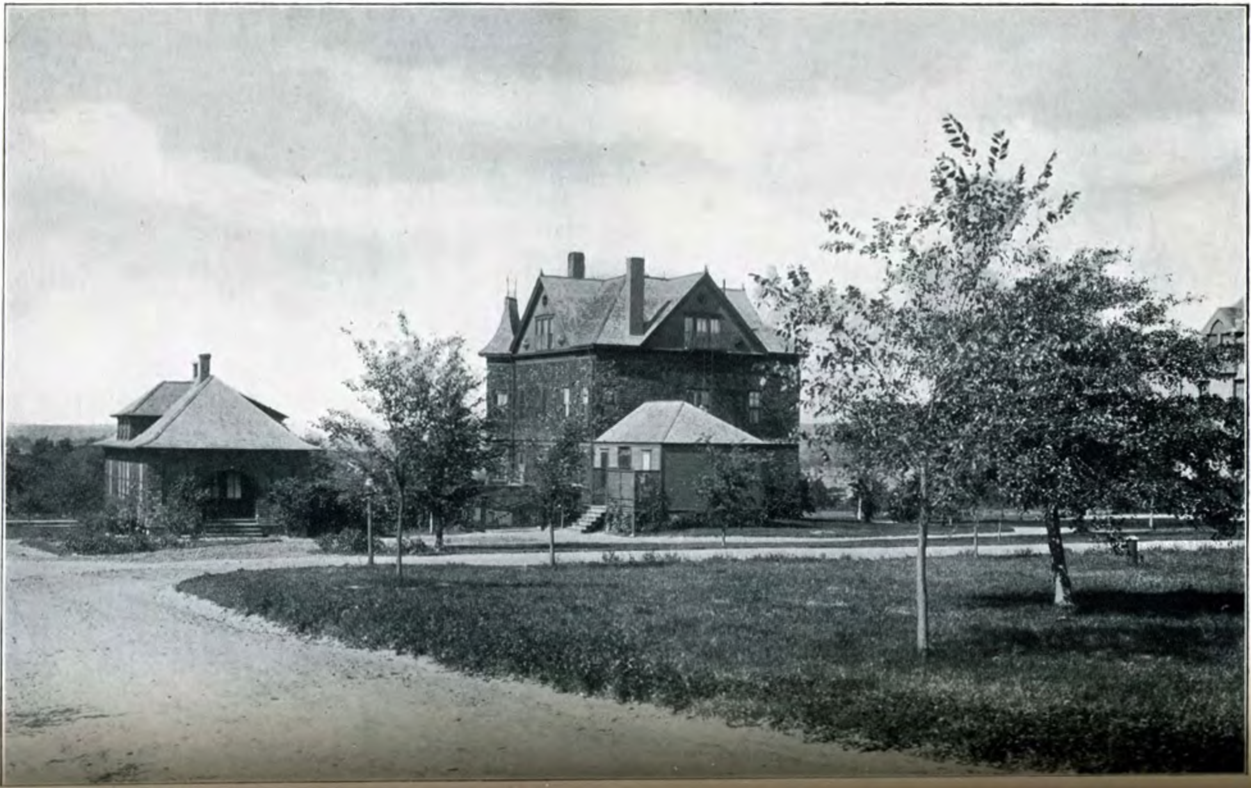
*For exceptions in expenses for women, see above.



BOARDING HALL

		Minimum.	Maximum.
Board, $3.50 per week for 36 weeks		$126 00	$126 00
*Room rent in men's dormitory, including heat and light:			
Fall term	$12 00		
Winter term	10 00		
Spring term	8 00—	30 00	30 00
Incidental expenses for all students, $3.00 per term		9 00	9 00
Laboratory fees, $2 to $10 per term		6 00	30 00
Books		15 00	30 00
Laundry, 30 cts. to 60 cts. per week		10 80	21 60
Uniform for military drill, $15.00		7 50	30 00
		$204 30	$276 60

FEES.—All fees are payable in advance. The amount of laboratory fees varies from 50 cents to $10.00 per term, depending upon the laboratory work taken. In botany the fee is 50 cents per term for preparatory students; $1.00, for college students. For each of the following $1.00 per term is charged: zoölogical laboratory; carpenter shop; wood-turning, forge shop, machine shop, and woodcarving. Fees for physics are as follows: for preparatory students, $1.00 per term; for Freshmen, $1.50; for Sophomores, $2.00. This pays for the material ordinarily used in class work and for the wear and care of tools and apparatus. Any person who breaks apparatus or tools, through carelessness or neglect of instructions, will be charged the cost of the same. The chemical laboratory fee is $3.00 per term for qualitative, quantitative, and organic laboratory work. This covers general chemicals and use of apparatus. Students are required to pay for breakage and for any chemicals they may use in making special preparations for themselves. A fee of $3.00 is also required in the electrical laboratory. A fee of 50 cents will be charged for each examination to make up a condition. Graduates pay the cost of diplomas, $5.00. *No diploma will be issued until the candidate has paid all term bills.*

UNIFORM.—Every able-bodied male student is required to drill and to wear a uniform. The uniform must be paid for immediately on entering the college, when the students are measured for the suits. When worn only on drill and properly cared for, one uniform may last two or more years. The student may, however, wear his uniform all the time.

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*There will be no refund for room rent except by special arrangement with the president of the college.

DAY STUDENTS.—Day students will be charged an incidental fee of $3.00 per term, the same as other students, payable in advance. Laboratory fees are also payable in advance. The college conveys students daily to and from the railroad station free of charge. Once at the beginning and end of each term, a team conveys trunks to and from the station.

BOARDING STUDENTS.—Boarding students shall deposit $50.00 each term, or give bond for $200.00 for the payment of all bills. No bond will be accepted from any member of the faculty. The price of board for 1906–7 will be $3.50 per week. Students who *leave regularly every week* on Friday afternoon and return Monday morning will pay $2.50 per week. No other reduction on board is made for less than five whole days' absence at one time, and this only when due written notice has been given. No person will be admitted to the dining-room until he has secured a dining-room card from the matron. After this card is issued, all charges for board will be made in accordance therewith unless the student has the card changed by the matron. All questions relative to bills for board must come before the matron, and her statement of bills will be accepted by the college office. Arrangement of charges for meals sent to students' rooms for any cause must be made in advance with the matron.

FURNITURE.—*All students in the men's dormitory are required to supply their own furniture and bedding.* The necessary furniture may be obtained at the college when desired. A room may be furnished for from $8.00 to $10.00. Iron bedsteads three feet wide are included under room-rent. The furniture, if properly kept, may be sold, when the student leaves, for one-half to three-fourths the original price.

ROOMS IN THE VILLAGE.—At present the dormitory facilities for young men are taxed beyond their capacity. Students especially desirous of rooming in the dormitory are advised to make their applications at once. It is probable that most of the dormitory rooms will be occupied by the older students. Arrangements have been made for rooms, however, in the village of Kingston, some of these being under college management and others in private houses. In the case of the former, room-rent will vary from 60 cents to $1.00 per week, with stoves and bedsteads furnished, the student to provide other furnishings and fuel himself. Furnished rooms in private houses for students who occupy them throughout the college year range from $1.25 to $2.00 per week.

College Store.—Students will be required to pay cash at the store for all books and other supplies.

Damage Fund.—All damages not due to ordinary wear shall be assessed to students as follows:

1. Students at once acknowledging damages and agreeing to pay for same will be assessed actual cost of repair, including labor.

2. Students found guilty of such damages but not acknowledging and settling for the damage will be charged double the cost of repair.

3. Students will be responsible for damages in their own rooms.

4. Damages that are not settled as above may be assessed to all the students or to a group of students, pro rata. Each case and the amount of assessment will be considered on its merits.

Self-Help.

There is a certain amount of labor about the college buildings, on the farm, at the experiment station, and in the offices and laboratories, for which students will be employed whenever it is feasible to do so. Industrious students frequently earn an amount which aids considerably in paying their expenses, a sum varying from $25.00 to $125.00 per year.

In view of the fact, however, that the amount of this work is strictly limited and that it is not the policy of the college to create such work, and, furthermore, because of the increasing number of students and the more frequent applications for student labor, it seems desirable to state the conditions under which this work will hereafter be assigned.

Preference will be given to such students as are in most need of this labor for support while in college. New students desiring labor should bring a statement from parent or guardian, form for which will be furnished, showing to what extent the student must depend upon himself for support. Preference will generally be given to students who have been in attendance for at least a year, and to students who room and board at the college.

Any student accepting labor must maintain a fair record both in deportment and in the classroom. No student will be kept at work who does not give reasonable satisfaction. Any student abusing privileges incidental to his duties as student laborer will be considered inefficient and his work withdrawn. Payment for this service will vary from ten to fifteen cents per hour, according to the grade and difficulty of the work and the experience of the student. In general, students should not expect more than ten cents an hour for the first year. It is a rule of the college that any student desiring to perform more than twenty hours of student labor per week must secure permission from the faculty council. In the future, it may be necessary to limit the amount which any one student may receive for student labor.

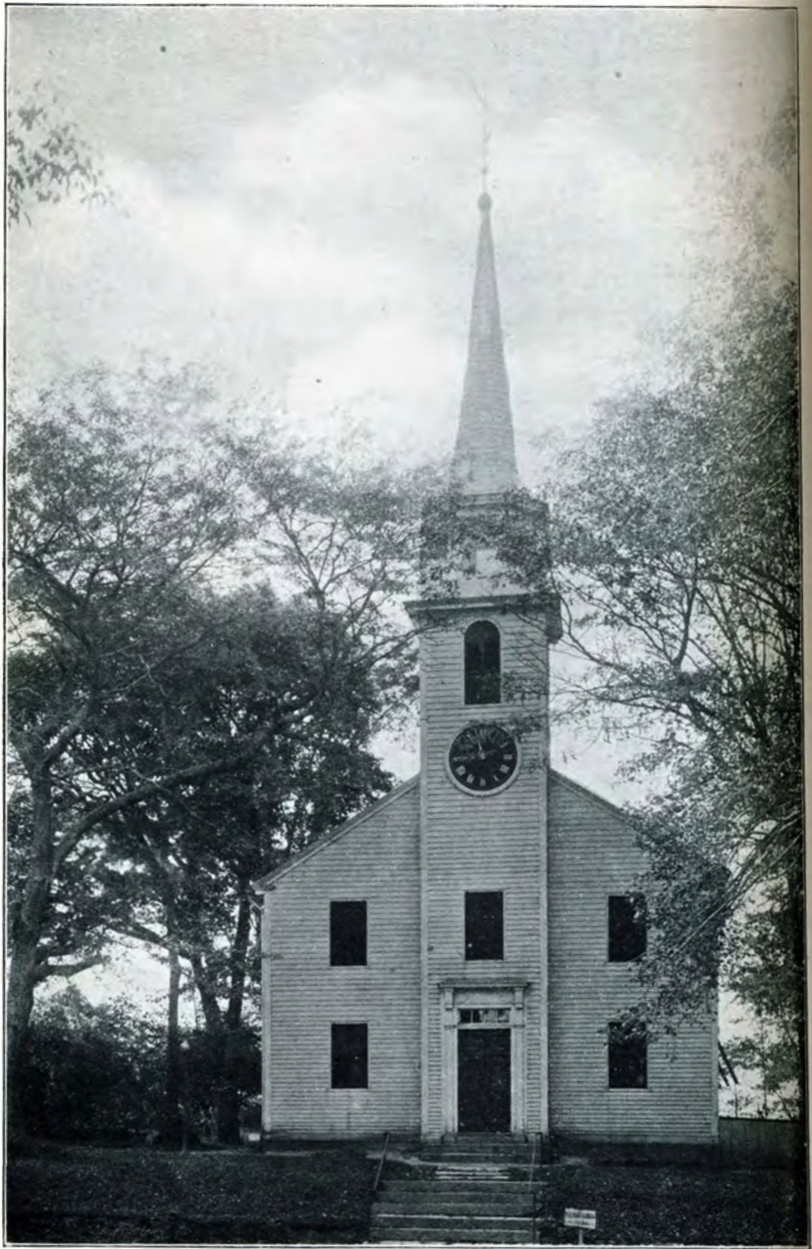
Some young people have the impression that the college offers such opportunities for self-help that it is safe to enter with practically no funds, relying solely on money earned while here. In exceptional cases this may be done, but prospective students are strongly advised not to enter until they have at least $100.00 at their disposal. A student who has to make his own way must also plan to work steadily during both the short and long vacations. Occasional vacation work at the college can be furnished to students, but as a rule they should look elsewhere for this class of work.

Regulations of the College.

Conditions.—Section 1.—Any student absenting himself from more than ten per cent. of the total number of recitations in any subject shall not be allowed to take his examination in that subject, except by special vote of the faculty council, but shall be conditioned.

Section 2.—No student shall begin or drop a study without the consent of the committee on schedule and classification or of the master of the preparatory school, the penalty for dropping such subject being a condition.

Section 3.—Examinations of conditioned students shall be held only at the beginning of each term: in September, on Monday at 1 P. M. and Tuesday at 9 A. M. of the week the term opens; in January and April, on the morning of the day before the term opens—at 9 A. M. Any student who, after such examination, shall still have three or more conditions shall be obliged to withdraw from the college. Students still having not more than two conditions may take



THE VILLAGE CHURCH.

second examinations at the next regular time, and, failing to pass, shall have no further opportunity to remove such conditions except by special vote of the faculty council.

Section 4.—A fee of fifty cents will be charged for each examination to make up a condition.

Section 5.—A student wishing to take an examination to remove a condition must make application for the same, to the instructor in whose subject the condition was received, as soon as possible before the date of the examination.

Section 6.—Students, whether regular or special, shall remove entrance conditions to both the preparatory school and the college within a year from the date of entrance, unless excused by the committee on schedule and classification.

Section 7.—At the opening of a term, any student previously registered in one of the three upper classes of the college who has two conditions shall be classified as a member of the next lower class.

Thesis.—Section 8.—Every student who is a candidate for a degree shall prepare a thesis, and shall submit it to the president of the college at least one month before the time for granting the degree. A copy of the thesis must be left in the library.

Student Publications.—Section 9.—No student shall publish any article in any college, class, or society publication designed for public circulation, or deliver any address on the college campus attended by persons other than students, without the consent of the president or some person appointed by him for granting such permissions.

Athletics.—Section 10.—No student shall represent the college on the athletic field, or in any other organization before the public, who is not regularly registered and in good standing; by good standing is meant conformity to all the rules of the college.

Section 11.—All women students are required to take three hours of exercise a week, preferably in the open air if the weather is suitable; if not, in the gymnasium.

Religious Influences.

This college is a state institution, and, consequently, the widest latitude is given to all creeds and forms of religious belief. Simple chapel exercises are held every school-day morning and are conducted by the president or some other member of the faculty. All students are expected to attend chapel.

A branch of the Intercollegiate Young Men's Christian Association is doing active work among the men students, holding a meeting every Sunday afternoon throughout the year. This association conducts courses in bible study and is taking the lead in endeavoring to establish sound and high ideas of college life.

The Young Women's Christian Union is doing a similar work for the young women.

The village church cordially invites all students to attend its services and, if possible, to join its membership. Every effort is made by the college to minister to the higher life of the students and to bring before them the noblest ideals, without in any way attempting to coerce them to particular beliefs.

Thursday Lectures.

From time to time speakers from abroad, both clergymen and laymen, are invited to address the students upon various subjects. Members of the faculty have also been among the lecturers. The list of speakers for the fall and winter terms was as follows:

Sept. 14. Pres. Kenyon L. Butterfield, College Ideals.
21. Athletic Meet.
28. Rev. W. F. Williams, Westerly, The Game of Life.
Oct. 5. Pres. Kenyon L. Butterfield.
12. Miss Elizabeth W. Kenyon, Days in Old Narragansett.
26. Rev. Charles Redfield, Kingston, Worship.
Nov. 2. Hon. Walter E. Ranger, Providence, Taking the Hint.
9. Pres. Kenyon L. Butterfield.
23. Gov. George H. Utter, Credits.
Dec. 14. Miss Lillian M. George, Library Work.
Jan. 11. Prin. H. M. Hovey, Peace Dale, A National Parasite.
18. James M. Scott, Providence, Manxland: Its Beauties; Its Legends.
25. Pres. Kenyon L. Butterfield, Bugle Calls.
Feb. 8. Orchestra.

Feb. 15. Rev. C. S. Macfarland, Malden, Mass., A Sermon.
Mar. 1. Prof. Gilbert Tolman, The Search for the Foundation of Knowledge.
8. Rev. Owen R. Lovejoy, New York, Child Labor.
15. Dr. P. K. Taylor, Kingston, Glimpses of Brazil.

The Rhode Island College Lecture Association.

Faculty and students, uniting with residents of the vicinity, conduct a winter lecture course, the aim of which is to introduce talented speakers upon subjects both entertaining and instructive. The association may be looked upon as a permanent and important factor in college activities. For the season of 1905–1906 the following lecturers were secured:

Jan. 12. Creswell MacLaughlin, The Age We Live in.
Jan. 26. S. A. Long, Lightning and Toothpicks.
Feb. 2. Prof. A. C. Burr, The Panama Canal.
Feb. 15. Frederick W. Bancroft, Irish Songs and Song Writers.
Mar. 9. Charles F. Underhill, The Rivals.
April 6. Bliss Perry, Rudyard Kipling.

The Library.

The library occupies a large room in Lippitt Hall and numbers over thirteen thousand volumes. The books are arranged in stacks, to which the students have free access. The Dewey system of classification is used; and a dictionary catalogue gives author, subject, and title. As the library has been from the first intended for reference work, the various departments of instruction have made their selections with the greatest care. Combined with the library is the reading-room, where more than one hundred of the leading periodicals—of literary, scientific, and general interest—are on file. From time to time these are bound, and prove of great value in research work.

The library is open every week day from 7:30 A. M. to 6:00 P. M., with the exception of a half-hour at noon. The librarian or her representative is in constant attendance to aid any one in search of information. As the college is an institution designed to further the educational interests of Rhode Island, all residents of the state are at liberty to use its library.

Location.

The college campus is one and a half miles from Kingston station, which is at the junction of the main line of the N. Y., N. H. & H. R. R. with the Narragansett Pier branch, thus insuring excellent railroad accommodations. The buildings are on a hill which commands an extended view of the surrounding country—a location both healthful and beautiful.

Departments of Instruction.

The following subjects are offered in the different departments. All studies required of regular students lead to the degree of Bachelor of Science.

Chemistry.

DR. LEIGHTON, DR. WHEELER.

Instruction in chemistry begins with the Freshman year and consists of lectures, recitations, and laboratory work; two hours of laboratory work being counted as equivalent to one period of recitation or lecture work. General chemistry extends through this year: two periods per week being devoted to lectures and recitations, and one period to laboratory work. Qualitative analysis extends through the first and second terms of the Sophomore year, a portion of the time being given to lectures and recitations, but the greater part to practical work in the laboratory.

The above subjects are required of all candidates for a degree, as essential to a liberal education, and are preparatory to the subsequent subjects which are designed for students desiring to make chemistry their profession, either as teachers or practical chemists. The more advanced subjects furnish an excellent preliminary basis for the study of medicine, biology, or agriculture.

The subject of stoichiometry and theoretical chemistry is begun in the general chemistry and continued in the third term of the Sophomore year, much attention being given to the application of the principles to problems. Inorganic preparations occupy three periods per week in the first term of the Junior year. Quantitative analysis is also taken up in this term, and extends throughout the Junior year. Organic chemistry begins in the first term of the Junior year and extends through five terms. It includes much laboratory work in organic preparations. The subject of theoretical chemistry, begun in general chemistry and continued in the Sophomore year, is taken up in a much more advanced way in the first term of the Senior year, a portion of the time being devoted to laboratory work.

The subject also affords opportunity for work in advanced inorganic chemistry, gas analysis, mineralogy, blowpipe analysis, assaying, sanitary chemistry, industrial chemistry, physiological chemistry, agricultural chemistry, toxicology, and textile coloring. In the Senior year, candidates for a degree in the chemical course are required to prepare a thesis on some chemical subject.

The agricultural chemistry includes the chemistry of soils and fertilizers, of plant and animal constituents and products, including the changes involved in their formation; as well as the chemistry of the methods of agricultural analysis.

The instruction in agriculture covers the special applications of chemistry to the various subjects included in that department.

The laboratory is thoroughly equipped with apparatus for the above-mentioned subjects, and opportunity is given for graduate students to continue work in the above lines beyond that required for a degree. A large number of German, French, and English chemical journals are accessible, thus affording excellent opportunity for research work.

Subjects.

I. General Chemistry.—Lectures, recitations, and laboratory work. *Throughout the Freshman year.* Lectures and recitations, 2 *exercises per week;* laboratory work, 1 *exercise of* 2 *hours per week. Required of all candidates for a degree.*

II. Qualitative Analysis.—Basic and acid analysis; analysis of salts. Industrial and natural products. Lectures, recitations, and laboratory work. *Fall and Winter terms, Sophomore year;* 3 *exercises of* 2 *hours each per week. Required of all candidates for a degree.*

III. Inorganic Preparations.—*Fall term, Junior year;* 3 *exercises of* 2 *hours each per week. Required of students in the Chemical course.*

IV. Stoichiometry and Theoretical Chemistry.—Lectures and recitations. *Spring term, Sophomore year;* 3 *exercises per week. Required of all students in Agriculture and Science.*

V. (A) Quantitative Analysis.—Gravimetric and volumetric analysis. Analysis of minerals. *Throughout the Junior year;* 3 *exercises of* 2 *hours each per week. Required of students in the Chemical course.*

V. (B) Quantitative Analysis (Advanced).—Analysis of minerals, ores, alloys, and industrial products. *Throughout the Junior year; 3 exercises of 2 hours each per week. Required of students in the Chemical course.*

VI. Organic Chemistry.—Lectures, recitations, and laboratory work. *Fall and Winter terms, Junior year:* lectures and recitations, 3 *exercises per week;* laboratory work, 1 *exercise of* 2 *hours per week. Required of students in the Chemical course.*

VII. Organic Preparations.—*Spring term, Junior year;* 3 *exercises of* 2 *hours each per week. Required of students in the Chemical course.*

VIII. Sanitary Chemistry.—*Winter term, Junior year;* 2 *exercises of* 2 *hours each per week. Required of students in the Chemical course.*

IX. Determinative Mineralogy.—*Winter term, Junior year;* 3 *exercises of* 2 *hours each per week. Required of students in the Chemical course and in Highway Engineering.*

X. Gas Analysis.—*Spring term, Junior year;* 1 *exercise of* 2 *hours per week. Required of students in the Chemical course.*

XI. Assaying.—*Spring term, Junior year;* 1 *exercise of* 2 *hours per week. Required of students in the Chemical course.*

XII. Industrial Chemistry.—Lectures and recitations. *Spring term, Junior year,* and *Fall term, Senior year;* 3 *exercises per week. Required of students in the Chemical course.*

XIII. Organic Chemistry (Advanced).—*Fall and Winter terms, Senior year;* 3 *exercises per week. Required of students in the Chemical course.*

XIV. Theoretical Chemistry (Advanced).—Lectures, recitations, and laboratory work. *Fall term, Senior year:* lectures and recitations, 3 *exercises per week;* laboratory work, 2 *exercises of* 2 *hours each per week. Required of students in the Chemical course.*

XV. Physiological Chemistry and Toxicology.—*Spring term, Senior year;* 3 *exercises of* 2 *hours each per week; elective.*

XVI. Textile Coloring.—*Fall and Winter terms, Senior year;* 3 *exercises per week. Optional for students in the Chemical course with Chemistry XVIII and XIX as alternatives.*

XVII. Agricultural Chemistry.—*Spring term, Senior year;* 3 *exercises per week. Required of students in the Chemical course.*

XVIII. Electro-Chemistry.—*Winter term, Senior year;* 3 *exercises per week. Optional for students in the Chemical course with Chemistry XVI as alternative.*

XIX. Metallurgy.—Lectures and recitations.—*Fall term, Senior year;* 3 *exercises per week. Optional for students in the Chemical course with Chemistry XVI as alternative and required in Fall term, Junior year, of students in Engineering courses.*

XX. (A) Advanced Inorganic Chemistry.—*Winter Term, Senior year;* 3 *exercises per week. Required of students in the Chemical course.*

XX. Thesis Work.—*Throughout the Senior year. Required of students in the Chemical course.*

Physics.

PROFESSOR TOLMAN, MR. W. S. RODMAN.

The instruction in physics is given with reference to the particular needs of the students in the different courses. It begins with the Freshman year and consists of lectures, recitations, and laboratory work.

In the Sophomore year the work is designed more especially for the students in engineering, and is intended to introduce them to many of the problems with which they must deal in engineering work.

Some standard text-book suited to the needs of the students in the different courses is used. This is supplemented by lectures, and problems illustrating the laws of physics.

Opportunities for advanced work are offered to properly qualified students.

Subjects.

I. General Physics.—Study of mechanics, hydraulics, pneumatics, and heat, *Fall term;* electricity and magnetism, *Winter term;* sound and light, *Spring term, Freshman year:* 2 *recitations per week;* laboratory work, 1 *exercise per week. Required of all students in Agriculture and Science courses.*

II. General Physics.—*Throughout the year;* 4 *exercises per week. Required of Sophomores in Engineering courses.*

Mineralogy and Geology.

DR. LEIGHTON, DR. WHEELER.

DETERMINATIVE MINERALOGY. — Determinative mineralogy is taught in the winter term of the Junior year, and consists of three exercises per week. A short course dealing with the elements of crystallography is given, together with the physical and chemical characteristics of minerals, especially of the rock-making minerals

A CORNER OF THE FARM.

composing our soils. Laboratory work in blowpipe analysis and physical determination of minerals follows the crystallography.

GEOLOGY FOR AGRICULTURAL AND HIGHWAY-ENGINEERING STUDENTS.—Under this subject historical geology is considered in outline, attention being given, also, to those phases of dynamical and structural geology which are particularly important. Special attention is given to rock weathering and soil formation, and to those characteristics of rocks which are of chief importance in connection with road construction.

Subjects.

III. Mineralogy.—See Chemistry IX. Dr. Leighton.

IV. Geology for Agricultural and Highway-Engineering students.—Lectures and recitations. *Spring term, Junior year; 3 exercises per week. Elective.* Dr. Wheeler.

Botany.

PROFESSOR MERROW.

The required work in botany for students in agriculture and the science courses begins in the fall term of the Sophomore year with the biology of plants, which continues three terms. The aim of this subject is to give the student a knowledge of plant life, by the study of the plants themselves in the laboratory and in the field. Attention is given to representatives of the vegetable kingdom from the lowest to the highest. Some time is given to the determination of species, but emphasis is placed on the structure of the plant, its activities, and its relation to its environment. In short, the subject is adapted to the needs of the general student who desires a knowledge of the principles of biology as illustrated by our common plants, and also furnishes a good foundation to the student who is to follow more advanced work in botany, agriculture, horticulture, or medicine. Elementary agricultural botany is given in the preparatory school, and is described with the other subjects of that school. Students wishing to emphasize botany in their choice of studies are given every opportunity to follow lines of work best suited to their needs. Excellent advantages are offered to those who wish to elect work in plant pathology. The laboratory keeps in store a supply of dry and alcoholic material for the study of parasitic fungi, and collecting fields for fresh material are near at hand. Each student is supplied with a compound microscope, a dissecting microscope, re-agents, and small instruments. The laboratory is equipped with apparatus for simple physiological experiments, a microtome, paraffin bath, stains, thirty Brendel models, Briosi and Cavara's Parasitic Fungi of Cultivated Plants, Ellis's Fungi Columbiani, Seymour and Earle's Economic Fungi, Arthur and Holway's Uredineæ, and an herbarium of native plants. A good working library, including several American and foreign periodicals, is an important part of the equipment of the laboratory.

Subjects.

I. Biology of Plants.—Lower plants are studied the first half-year, seed plants the second half-year. Laboratory, reading and lectures. *Throughout the Sophomore year; 3 exercises of 2 hours each per week. Required of students in the Science courses.*

II. Pathology.—A study of the nature and the causes of plant diseases and the remedies for them. Laboratory, field work, reading and lectures. *Elective, open to students who have taken Botany I. Hours arranged with instructor.*

III. Histology.—Laboratory, reading, and lectures. The laboratory work includes methods of imbedding, sectioning, staining, and mounting. *Elective; open to students who have taken Botany I. Hours arranged with instructor.*

IV. A study of the Spring Flora of Kingston, considered from an ecological and systematic standpoint. Special attention is given to the rose family. The major part of the time may be given to herbaceous forms or to trees and shrubs. Field and laboratory. *Spring term; 3 exercises per week. Elective; open to students who have taken Botany I.*

V. A study of the Fall Flora of Kingston, considered from an ecological and systematic standpoint. Special attention may be given to weed-plants, grasses, and the clover family, or the student may give his attention chiefly to trees and shrubs. Field and laboratory. *Fall term; 3 exercises per week. Elective; open to students who have taken Botany I.*

By consulting the instructor, other arrangements may sometimes be made for those desiring to elect work in botany.

Zoölogy.

PROFESSOR BARLOW.

The work in zoölogy begins with a general subject running through the year. Three periods, each two hours long, are given to this work. Beginning with the lowest and most simple forms of life, type forms from each important group are studied. Neatness and precision in dissection and accuracy in drawing are emphasized. During the fall term protozoans, coelenterates and echinoderms are studied. Then follows a study of worms, arthropods and mollusks, and in the spring term the vertebrates are taken up. This general subject is considered essential to an understanding of the more practical studies which follow in the course, and is required of all Sophomores in the science courses.

Electives are offered in anatomy, physiology, embryology, histology, and economic entomology. Subjects V (A) and III (B) are specially designed to meet the needs of those who are preparing to study medicine or veterinary science. Subject VII (A) is designed to be of value to those who are to take up any of the various lines of agriculture and animal industry.

Instruction is largely by laboratory work and lectures. Textbooks are used, and much reference work in standard texts and current periodicals is required.

Especial facilities for the study of the smaller farm animals are afforded by the college farm and experiment station poultry-yards. The experiments now in progress in the "hothouse" plans of raising poultry give unequalled advantages for study in this line. The rapid reproduction of poultry, rabbits, etc., makes them ideal material in studying living processes.

The marine fauna, occurring at a short distance from the college, in the ocean, Narragansett bay and numerous estuaries; the fresh-water fauna, occurring in the springs, ponds, and streams near by; together with an abundant land fauna of the smaller types of mammals, birds, reptiles, amphibians, fish and insects, make the locality especially favorable for field work.

For indoor study the department is well equipped with Leuckart's charts; Zeigler's and other models; manikins elucidating the anatomy of man, horse, and fowl; skeletons of all the domestic animals; a series of the principal vertebrated forms, each type being represented by skeleton and mounted skin. The collection includes many rare and remarkable forms from distant parts of the earth, such as the lung fishes, Hatteria, the wingless birds of New Zealand, and many Australian forms. The invertebrate series is represented in a similar way. The collection of Rhode Island birds is practically complete, and most of the reptile and batrachian species of the state are represented.

The laboratory is provided with microtome, microscopes, and all necessary apparatus for microscopic work. In the library is the best literature upon the subject, and a number of the leading current zoölogical journals are available at the experiment station or by special arrangement.

Subjects.

I. (B) Animal Biology.—A study of selected types of the leading animal phyla, beginning with the low forms and advancing systematically to the vertebrates. *Throughout the Sophomore year;* 3 *exercises of* 2 *hours each per week. Required in the Science courses.*

III. (B) Physiology.—Comparative physiology of mammals. *Winter and Spring terms;* 2 *recitations and* 1 *laboratory exercise of* 2 *hours per week. Open to students who have taken V (A) and Chemistry VI.*

IV. (A) Embryology.—The development of the chick and frog. *Spring term;* 3 *exercises of* 2 *hours each per week. Elective; open to students who have taken Zoölogy VI.*

V. (A) Vertebrate Anatomy.—Detailed study of the cat. *Fall term;* 3 *exercises of* 2 *hours each per week. Elective.*

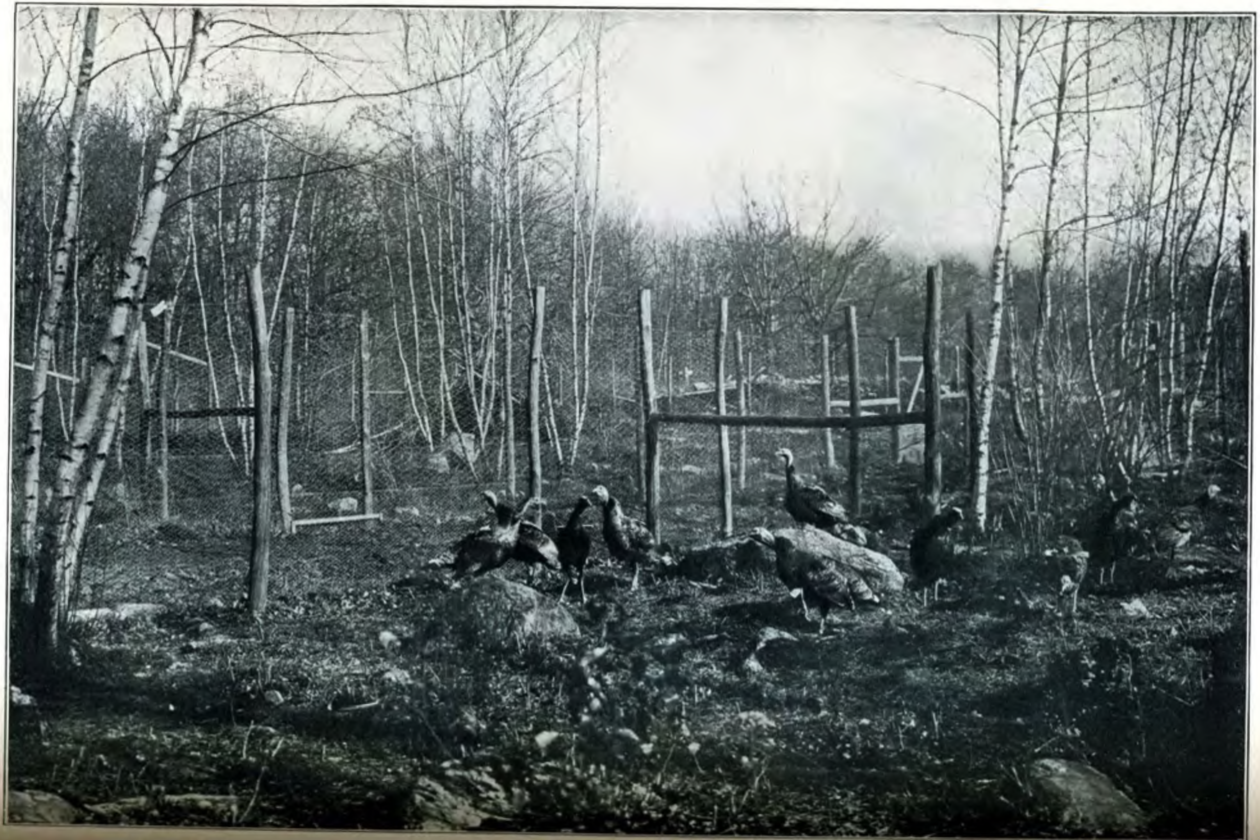
VI. Normal Histology and Histological Methods.—*Winter term;* 3 *exercises of* 2 *hours each per week. Elective; open to students who have taken course I (B).*

VII. (A) Entomology.—Lectures, laboratory and field work. Special attention is given to forms of economic importance. *Throughout the year;* 3 *exercises of* 2 *hours each per week. Elective.*

VIII. (A) More advanced work in special topics may be taken up by special arrangement with the instructor.

Psychology.

I. Elementary Course.—Lectures, recitations, simple laboratory experiments. *Given alternate years; next given in* 1908. *Winter and Spring terms;* 3 *exercises per week. Elective for Juniors and Seniors.*



TURKEYS IN EXPERIMENT YARD.

Agriculture.

PROFESSOR CARD, DR. CURTICE, DR. WHEELER, MR. TYLER, MR. BURDICK, MR. HALPIN.

The science of agriculture rests upon many sciences. Thorough training in agriculture therefore presupposes a foundation knowledge of these sciences. This foundation must be obtained in other departments of the institution.

The object of an agricultural education is to emphasize the why of farming rather than the how. In other words, it is the special province of an agricultural college to deal with the principles which underlie the various operations of the farm rather than with the methods of performing those operations. In doing this it does not underestimate the importance of knowing how to do farm work. It recognizes fully that there can be no complete success without such knowledge, but it believes that the average student can better learn these things on a well-managed, up-to-date farm than at an agricultural college. He can there gain experience and earn wages at the same time. At college he is on expense and earning nothing. Some practical operations can be better learned at college than elsewhere. These things the college will try to teach. It will not try to teach a man to become expert in hoeing corn or in digging potatoes. To teach such things would mean that the student must miss many things of value which the college can teach and the farm can not.

A college course in agriculture should teach a man those things which will enable him to make a success of his profession. It should do more; it should give him an educational training which will enable him to become a leader in the affairs of men. The world needs farmers; it needs men among farmers more. It is calling for such men. It offers them a liberal share of its rewards. Positions are waiting, opportunities are opening, possibilities exist on every farm. To train men to fill these positions, to embrace these opportunities, to see the possibilities, is the object of the course in agriculture.

SPECIAL COURSE IN POULTRY-KEEPING.—A special course in poultry-keeping continues for twelve weeks immediately following the Chrismas vacation. The aim of the course is to give practical instruction in the science and art of poultry-keeping and to present the latest and best methods in practice and management. This, the pioneer course in poultry-keeping, has been in progress for the past eight years and has proved uniformly successful.

Theoretical or practical teaching is given in the following subjects: zoölogy, including anatomy, physiology, and embryology; breeds of fowls and their origin; principles of breeding, mating, care, and management; incubation and brooding; chemistry of foods; feeding; egg and flesh production; caponizing; fattening; killing; dressing and marketing; the prevention of diseases; poultry plants—including location, drainage, buildings, drawing of plans, specifications, estimates, construction, ventilation, and heating; records and accounts; crops raised for poultry or as an adjunct to the business.

The practical work includes individual practice in artificial incubation and brooding, in the care of fowls, and in their preparation for market. Frequent excursions are made to typical poultry plants for a study of their stock and practical management. An annual trip is made to either the Boston or New York poultry show. One of the strong features of the course consists in the fact that the students are brought in contact with a large number of practical poultrymen, who come to the college annually to assist in the instruction.

Early enrollment is necessary for admission to this course,as the number of applications frequently exceeds the number of students that can be accommodated. No entrance examinations are required. Certificates of attendance are given to deserving students at the close of the course.

Plans are being developed for spring and fall courses in poultry-keeping with a view to giving an opportunity for practical work not only in the care of poultry but in the allied branches of horticulture, dairying, and carpentry, together with a certain amount of classroom exercises in each of these.

Spring and fall work is more seasonable for all concerned and offers especially favorable opportunities for those who either have never had practice or who, having had some, desire to continue and perfect themselves preparatory to changes from shop or office to farm life. The winter short course is more exclusively for poultrymen and fails in giving practice in the allied branches. These courses may fall short in presenting all of the theoretical work, but make full compensation in the more necessary practical field.

Should there be any considerable demand from the students of

HORTICULTURAL DEPARTMENT

other colleges, school-teachers, or those who desire to spend their vacations in taking a course similar to the above, during the summer, such a course will be seriously considered, and if the conditions warrant, will be undertaken. In addition to the above, the college has excellent facilities in both its botanical and zoölogical departments, and it is possible that electives could be chosen in either.

The time of the above courses coincides with the college terms.

Subjects.

I. Soils and Fertilizers.—Origin and formation of soil; chemical properties; influence of chemical constituents upon the physical conditions and biology of the soil. Farm manures; artificial manures—composition, precautions and economy in using, influence upon the soil and plants; action of soils and of plants upon manures; formulas for farm crops, with calculations of formulas. *Spring term, Junior year; 3 exercises per week. Required of Agricultural students.* Dr. Wheeler.

I. (A) The soil.—Constituents; elements of fertility; texture; moisture; living organisms; under-draining; tillage; humus; temperature. This course treats of the physical characteristics of the soil as distinct from the chemical. *Fall term, Junior year; 2 class exercises and one laboratory period per week. Required of Agricultural students.* Professor Card.

II. Farm Crops.—Needs of the plant; maintenance of fertility and humus; rotations; pastures; meadows; grains; grasses; clovers; forage plants and roots. *Winter term, Junior year; 3 exercises per week. Required of Agricultural students.* Professor Card.

III. Farm Equipment.—Selection and equipment of farms; buildings, fences, roads, water supply, farm power, field machinery, and appliances. *Spring term; 3 exercises per week. Elective.* Professor Card and Mr. Burdick.

IV. Farm Management.—Farm capital, fixed and circulating; labor, manual and team; choice of a farm; ownership or rental; farm balance; implements and equipment; systems of farming; marketing problems; advetrising; records and accounts; legal questions; coöperation; specific types of farming. *Winter term; 2 exercises per week. Elective.* Professor Card.

V. Agricultural Economics.—See Economics and Rural Sociology II.

VI. Farm Surveying and Drainage.—Mapping of fields; location of drains; leveling and construction of farm drains. *Fall term; 2 exercises per week. Elective.* Mr. Tyler.

VII. Farm Animals.—A study of the types, breeds, and care of different farm animals. *Fall term; 3 exercises per week. Elective.* Dr. Curtice.

VIII. Farm Animals.—Principles of feeding, nutrition, assimilation, and excrementation; selection, composition, and digestibility of food-stuffs; feeding standards and compounding of rations; practice in the preparation of foods and methods of feeding; principles of hygiene and management. *Winter term; 3 exercises per week. Elective.* Dr. Curtice.

VIII. (A) Farm Animals.—Principles governing their choice and breeding. *Spring term; 3 exercises per week. Elective.* Dr. Curtice.

Poultry-Keeping.—Under subjects VII, VIII, and VIII (A) the student may substitute Poultry-Keeping for Farm Animals. The poultry course will essentially parallel that of Farm Animals, but be modified to suit its requirements. It is expected that students taking the poultry-course work will spend a certain portion of the Fall and Spring terms on incubation and brooding. Mr. Halpin.

IX. Dairy Husbandry.—Care and management of dairy catttle; buildings and equipment; milk production, composition, management, aeration, pasteurization, sterilization, testing, preservation, transportation; creaming. *Spring term; 3 exercises per week. Elective.* Mr. Burdick.

XI. Agricultural Experimentation.—Objects, methods, and results of agricultural experimentation; precautionary measures; sources of error; interpretation of results. *Spring term; 2 exercises per week. Elective.* Dr. Wheeler.

XII. Agricultural Literature.—Seminary courses in the literature of special subjects. *By arrangement. Elective.*

XIII. Original Investigations.—For advanced students only. *By arrangement. Elective.*

XIV. Rural Sociology.—See Economics and Rural Sociology III.

XV. Handicraft Courses.—For students who wish training in the practical operations of agriculture, handicraft courses are open in the care of live stock, poultry-culture, fruit-growing, vegetable-gardening, use and care of farm machinery, etc. *By arrangement. Not to count toward a degree.*

Horticulture.

PROFESSOR CARD, MR. BARNES.

Work in horticulture is designed for students from all courses. It is felt that some knowledge of the subject may very properly form a part of every well-rounded education.

In the introductory subject the aim is to discuss principles of general importance to all who have to deal with orchard or garden crops. The subjects of pomology and vegetable-gardening are designed to give practical instruction in the growing of fruits and vegetables.

Landscape-gardening is especially recommended to those who seek to appreciate the beautiful in nature or in art. Its aim is to apply the principles of beauty, as evinced in the work of nature, to the art of embellishing grounds.

Forestry touches problems of import to every citizen interested in the public welfare. Owing to the intimate relation between forests and waterflow, the subject is often of more vital importance to the manufacturer than to the farmer.

The subject of plant-breeding appeals chiefly to those interested in the broader problems of biological development and relationship. A careful study of the amelioration and development of plants under culture throws light upon many of the general problems of evolution which are of interest to all thinking students.

The subjects of reading and original investigation are designed chiefly for students who wish to make a specialty of horticulture.

The action of the General Assembly in providing for a well-equipped greenhouse will make it possible to do much better work in horticulture than heretofore. It is expected that the greenhouse will be ready for use at the beginning of the fall term of 1906. This added equipment will not only make it possible to introduce courses in strictly greenhouse work but will increase the efficiency of other lines of agricultural instruction, particularly in the study of soils. It will also furnish additional opportunities for original investigation on the part of advanced students.

Subjects.

I. Principles of horticulture.—A discussion of fundamental princples underlying horticultural operations in orchard, garden, and greenhouse. *Fall term; 2 recitations and 1 laboratory period per week. Elective.* Mr. Barnes.

II. Pomology.—Lectures and supplementary reading. Designed to give practical instruction in fruit-growing. *Winter term; 3 exercises per week. Elective.* Mr. Barnes.

III. Vegetable-Gardening.—Methods of growing garden vegetables in the open ground and under glass. *Spring term; 3 exercises per week. Elective.* Mr. Barnes.

IV. Landscape-Gardening.—The principles underlying landscape-gardening as a fine art, with discussion of the ornamentation of home grounds, school grounds, cemeteries, parks, highways, and other public grounds. Lectures and supplementary reading. *Fall term; 3 exercises per week. Elective.* Professor Card.

V. Forestry.—General importance of forests, their influence on climate and water supply, methods of regeneration, and systems of forest management. Lectures and supplementary reading. *Spring term, Junior year; 3 exercises per week. Elective.* Professor Card.

VI. Plant-Breeding.—A discussion of the development of plants under culture, with especial reference to problems of heredity, environment, variation, selection, and evolution. Lectures and supplementary reading. Open to students who have had Botany I. *Winter term; 2 exercises per week. Elective.* Professor Card.

VII. Horticultural Literature.—A seminary course designed to give familiarity with horticultural writings, ancient and modern. *By arrangement. Elective.*

VIII. Original Investigation.—For advanced students only.—*By arrangement. Elective.*

IX. Greenhouse Management.—Practical work in the growing of plants under glass: the mixing of soils, potting, propagating, watering, ventilating, and care of greenhouse crops. The work under glass will be supplemented with lectures, recitations, and readings in so far as may be needed to render it of greatest value to the student. *Winter term. Elective.* Mr. Barnes.

Languages.

The subjects grouped under this head are English, German, French, and Latin.

In all the college courses leading to a degree, three years of English and two years of foreign language study are required.

The aim of the department must necessarily vary with the language taught. In English, the student is expected to gain increased facility in the correct use of his mother tongue as well as a large acquaintance with its best literature. In French and German, while practice in speaking and writing is constant, special emphasis is put upon a study of some of the literary masterpieces; and incidentally a good foundation is laid for the easy reading of scientific texts. The required year's work in Latin is looked upon as furnishing a valuable preparation for later language study and as being helpful in undertanding scientific terms.

The library is a most important factor in the work of the department, as the English language and literature are represented in it by over one thousand carefully selected volumes and the French and German literatures by about six hundred.

Subjects.

ENGLISH.

PROFESSOR WATSON, MISS BOSTWICK.

*II. Rhetoric.—Text-book study and practical application of rhetorical principles in themes and exercises. *Throughout the Freshman year;* 2 *exercises per week. Required of all candidates for a degree.*

III. Critical study of certain prose masterpieces by Carlyle, Emerson, Lamb, Holmes, Thoreau, Burroughs, and Warner; with essays and various short papers. *Throughout the Sophomore year;* 2 *exercises per week. Required of all candidates for a degree.*

IV. General English Literature.—Largely a study of Chaucer, Shakespeare, Milton, Wordsworth, Tennyson, Browning, and their times. Essays and collateral reading required. Students are encouraged to special investigation along literary and historical lines. *Throughout the Junior year;* 2 *exercises per week. Required of all candidates for a degree.*

V. Special English Literature.—Study of special periods and authors. *Throughout the year;* 3 *exercises per week. Elective; open to students who have taken courses I–IV or their equivalent.*

VI. Special Work in Themes.—*Throughout the year. Elective; open to students who have taken courses I–IV or their equivalent.*

GERMAN.

PROFESSOR WATSON.

I. Elementary German.—Grammar, dictation, conversation, reading of easy prose and poetry. *Throughout the year;* 4 *exercises per week. Required of all candidates for a degree who do not offer French.*

II. Reading of intermediate texts, composition, conversation. *Fall term, Sophomore year;* 3 *exercises per week. Open to students who have taken subject I or its equivalent, and required of all candidates for a degree who do not offer French.*

III. German Classics.—Goethe, Schiller, Lessing. *Winter and Spring terms, Sophomore year;* 3 *exercises per week. Open to students who have taken subjects*

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*Course I, Elementary English, is given in the preparatory school.

I and II or their equivalent, and required of all candidates for a degree who do not offer French.

IV. (A) German Prose. Freytag, Von Scheffel, Dahn. *Throughout the year; 3 exercises per week. Elective; open to students who have taken subjects I–III or their equivalent.*

VII. Scientific German.—Special work assigned by different professors. *Elective; open to those who have taken subjects I–III or their equivalent.*

FRENCH.

PROFESSOR WATSON, MISS BOSTWICK.

I. Elementary French.—Grammar, dictation, conversation, reading of easy prose and poetry. *Throughout the year; 4 exercises per week. Required of all Freshmen not taking German or Latin and not offering French for admission.*

II. Reading of intermediate texts, composition, conversation.—*Throughout the Sophomore year; 3 exercises per week. Required of all candidates for a degree who do not offer German.*

III. French Classics.—Corneille, Racine, Molière. *Throughout the year; 3 exercises per week. Elective; open to students who have taken subjects I and II.*

IV. (A) French Prose.—Hugo, Sand, Balzac, Loti. *Throughout the year; 3 exercises per week. Elective; open to those who have taken subjects I–III or their equivalent.*

VI. Scientific French.—Special work assigned by different professors. *Elective; open to those who have taken subjects I and II or their equivalent.*

LATIN.

MISS BOSTWICK.

*II. Cæsar or selections from various Latin authors. *Elective. Throughout the year; 3 exercises per week.*

History.

MISS KENYON, MISS BOSTWICK.

The aim of the work in history is to present and interpret the political, social, constitutional, and diplomatic development of the leading countries of Europe and America, and to foster scientific

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*Elementary Latin is given in the preparatory course.

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THE NORTH ROAD.

habits of study. The library contains more than a thousand volumes on history, and local records have been used for research work.

Subjects.

*II. American History.—Lectures, recitations, reports. The origin and early development of American institutions; the colonial policy of European states; intercolonial wars; the Revolution; the establishment, the development, and operation of the Constitution of the United States; political parties; the Civil War and Reconstruction. *Throughout the year; 3 exercises per week. Elective for Juniors and Seniors.* Miss Kenyon.

IV. European History.—Lectures, recitations, and reports. The sources of mediæval and modern civilization; the empire of Charles the Great; the feudal system; the crusades; the national growth of France, Germany, and England; the Renaissance; the Reformation, the French monarchy in the seventeenth century, the system of the balance of power, the Puritan Movement, the Revolution of 1688, the rise of Prussia, the French Revolution, and a general survey of European history since 1815. *Throughout the year; 3 exercises per week. Elective for Juniors and Seniors.* Miss Kenyon.

VII. Hebrew History and Literature.—*Throughout the year; 1 exercise per week. Elective.* Miss Kenyon and Miss Bostwick.

V. Government.—Lectures, recitations, reports. *Fall term, Senior year; 3 exercises per week. Required of all candidates for a degree.* Miss Kenyon.

Economics and Rural Sociology.

PRESIDENT BUTTERFIELD.

Subjects.

I. Political Economy.—Text-book, supplemented by lectures, readings, and essays. The first term is devoted to the general principles of the subject; second term, to consideration of present-day problems. *Winter and Spring terms, Senior year; 3 exercises per week. Required of all candidates for a degree.* President Butterfield.

II. Agricultural Economics.—The study of agriculture as an industry, from the point of view of political economy. Includes a study of the agricultural market; transportation of agricultural products; agricultural labor; farm ownership and tenancy; mortgages, etc. *Spring term; 2 exercises per week. Elective.* President Butterfield.

***Course I, General History, is given in the preparatory course.**

III. Rural Sociology.—Movements of the farm population—causes and results; general social conditions of farmer, such as illiteracy, health, crime, etc.; personal and social traits developed by rural life; means of communication in rural communities; the rural school; agricultural education; the country church; farmers' organizations, federation of rural social forces. *Fall term;* 2 *exercises per week. Elective.* President Butterfield.

Mathematics.

PROFESSOR LEE, MR. W. S. RODMAN.

All students study higher algebra, solid geometry, and plane trigonometry, in their Freshman year. These subjects offer good mental discipline and form the basis of future work in engineering. They include as applications the solution of numerical equations and problems involving logarithms, the measurement of volumes and areas, and solution of triangles.

Those who elect engineering courses study analytical geometry during the first two terms of the Sophomore year. In the spring term calculus is begun, and is completed in the winter term of the Junior year. The remainder of this winter term and the spring term during the Junior year are occupied with the study of theoretical mechanics.

Throughout the work emphasis is laid on the direct application of the subjects to the actual problems that arise in the engineering courses of which they form a part. The student is made to feel the need of advanced methods of treatment simultaneously with the presentation of that treatment. It is the aim of the work principally to develop engineers with useful mathematical training.

Subjects.

*IV. Higher Algebra.—Permutations and combinations, applications of the principles of mathematical induction, theory and use of logarithms (not involving infinite series), determinants, elements of the theory of equations. *Winter term, Freshman year;* 4 *exercises per week. Required of all candidates for a degree.*

V. Plane Trigonometry.—Study of the six functions as ratios; proofs of the principal formulas; in particular the sine, cosine, and tangent of $A+B$ and $2A$. The use of logarithms and the solution of triangles with applications. *Spring term, Freshman year;* 4 *exercises per week. Required of all candidates for a degree.*

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*Courses I, II, and III are given in the preparatory school.

VI. Solid Geometry (Phillips and Fisher).—The usual theorems relating to lines and planes in space. Calculation of cubic contents of polyhedra, the cone, sphere, and cylinder. *Fall term, Freshman year;* 3 *exercises per week. Required of all candidates for a degree.*

VII. Analytical Geometry.—The various co-ordinate systems and their relations. Derivations of the equations of the line, circle, and conics. Study of loci and methods of plotting. Detailed analysis of the equations of second degree in two variables. *Fall term, Sophomore year;* 3 *exercises per week. Required of students in the Engineering courses.*

VII. (A) Solid Analytical Geometry.—Co-ordinate systems in space and study of the line, plane, and quadric surfaces. Loci in space. *Winter term, Sophomore year;* 3 *exercises per week. Required of students in the Engineering courses.*

VIII. Calculus.—The differentiation of the ordinary functions and applications to geometry and engineering. Taylor's and Maclaurin's theorems, partial differentiation, maxima and minima of functions of one or more variables. Problems in physics and allied subjects. Methods of integration, theory of planimeter, applications to practical problems of geometry and mechanics. *Spring term, Sophomore year, and Fall term, Junior year;* 3 *exercises per week; Winter term;* 4 *exercises per week. Required of students in Engineering courses.*

IX. Theoretical Mechanics.—The laws of motion, forces acting at a point, and in a plane, parallel forces and centers of force, frictional resistance, principle of work, motions produced by constant and variable force. Motions of rigid bodies, impulsive forces. Solving of problems. *Spring term, Junior year;* 4 *exercises per week. Required of all students in the Engineering courses.*

Mechanical Engineering.

PROFESSOR DRAKE, MR. T. C. RODMAN, MR. KNOWLES, MR. KNIGHT.

The aim of this department is to give sound theoretical and thorough practical training to students who seek to prepare themselves for useful and responsible positions. Shop-work will furnish such training as will ensure, other things being equal, marked success in mechanical pursuits subsequent to graduation. The regular four-years' course deals with mechanical engineering as applicable to the industries carried on in New England and particularly in Rhode Island. Special attention is given to the designs and the economical operation of shops and mills, and of manufacturing and industrial machinery. The subjects of mechanism, metallurgy, heating and ventilation of buildings, engineering specifications, and laws of contracts are treated by lectures and textbooks. The several laboratories are well equipped for working in wood and metals and for the testing of materials used in construction. Students in the course of mechanical engineering receive instruction in bench-work in wood, wood-turning, pattern-making, forging, machine-shop work and mechanical drawing.

The carpenter shop contains benches and tools sufficient to accommodate twenty-four students at one time. The subject is designed to give skill and confidence in working the various kinds of wood, and also to impart a fair knowledge of the principles of building and construction. The wood-turning room contains thirteen lathes, each with its complete set of gouges and turning-tools. In the same room are benches for pattern-making, and also power machinery for working wood; such as circular saw, hand-saw, jig-saw, surface-planer, buzz-planer, mortising-machine, dowel-machine and others. All students take wood-turning, and during the period each has practice under the direct charge of the engineer in care of the shop, boiler, and engine. The engine is of thirty horse-power. The work in pattern-making given to the students in the mechanical department consists in the making of selected pieces to illustrate the principles of shrinkage, drafts, finish, core-box making, built-up work, and the general requirements of pattern-making.

The forge shop will accommodate twelve students at one time. It contains twelve forges and anvils, a stock-cutter, a bolt-header, a post-drill, and is well supplied with all the hammers, tongs, and other forge and anvil tools necessary for complete work. A regular course is followed here as in other lines; and for the students of the agricultural course the work is of such a nature as is found about a farm. The various operations of drawing, bending, upsetting, and welding are taught and applied in the making of such useful pieces as staples, hooks, chains, and iron work for farm tools. The students of the mechanical department follow a similar course, but in a direction more suited to the machine shop. Bolts, nuts, machine-forgings, chisels, and lathe tools are made, and afterward put to practical use. Only students in the engineering courses work in the machine shop.

Practice in the machine shop is designed to give a sure knowledge of and intelligent practice in the best modern methods of using the various tools; such as lathes, planers, drills, milling-machines, and grinding-machines. Hand work at the bench is offered, and includes instruction in chipping, filing, scraping, and finishing. Students of former years have made an engine, dynamo, speed lathe, full set of arbors, set of nut arbors, and a variety of other tools.

In experimental engineering the students make tests of engines, boilers, pumps, steam gauges, injectors, and a hydraulic ram. The strength of materials is investigated theoretically in class under the head of mechanics of materials, and practically in the laboratory by conducting tests upon specimens of wood, iron, steel, brick, stone, cement, boiler-plate, etc. In hydraulics, water-meters are calibrated, and measurements of water made by orifices and weirs.

Subjects.

I. Mechanical Drawing.—Elementary principles, use of tools, inking-in, geometrical drawing. *Winter and Spring terms, Freshman year;* 2 *periods of* 2 *hours each per week. Required for a degree in Engineering courses.*

II. Mechanical Drawing.—Screw threads, bolts, and nuts, shade lines, line shading. *Fall term, Sophomore year;* 3 *periods of* 2 *hours each per week. Required for a degree in Engineering courses.*

III. Mechanical Drawing.—Descriptive Geometry. *Spring term, Sophomore year;* 3 *periods of* 2 *hours each per week. Required for a degree in Engineering courses.*

IV. Mechanical Drawing.—Machine details and parts, tracing, blue-printing. *Winter term, Sophomore year;* 3 *periods of* 2 *hours each per week. Required for a degree in Engineering courses.*

V. Mechanical Drawing.—Elements of machine design. *Fall, Winter, and Spring terms, Junior year;* 1, 2, *and* 3 *exercises, respectively, for students in Mechanical Engineering. Fall term, Junior year;* 1 *exercise for students in Electrical Engineering. Required for a degree in Mechanical and Electrical Engineering.*

VI. Mechanical Drawing.—Poultry-house designs; estimates of materials and cost, principles of construction. *Elective.*

VII. Mechanical Drawing.—Farm buildings; plans, estimates, specifications. *Elective.*

VIII. Wood-Working.—Use of tools, bench-work, and carpentering. *Fall and Winter terms, Freshman year;* 1 *exercise of* 3 *hours per week. Required for a degree in Engineering courses.*

IX. Wood-Working.—Wood-Turning. *Spring term, Freshman year;* 1 *exercise of* 3 *hours per week. Required for a degree in Engineering courses.*

X. Pattern-Making.—*Winter term, Junior year;* 2 *exercises of* 3 *hours each per week. Required for a degree in Mechanical Engineering.*

XI. Shop-Work. Forging, drawing, bending, welding, and tool-dressing. *Fall term, Junior year;* 2 *exercises of* 3 *hours each per week. Required for a degree in Mechanical Engineering.*

XIII. Machine-Shop Practice.—*Winter and Spring terms, Junior year;* 2 *and* 3 *exercises per week, respectively. Fall and Winter terms, Senior year;* 3 *exercises of* 3 *hours each per week for students in Mechanical Engineering. Winter and Spring terms, Junior year;* 2 *exercises of* 3 *hours each per week for students in Electrical Engineering.*

XIV. Wood-Carving.—Care and use of tools, geometrical motives, diaper patterns, incised carving, flat and curved surface carving, historic ornament, low relief and high relief. 1 *exercise of* 3 *hours per week. Elective.*

XV. Steam Boilers.—Types, construction, strength, uses and management. *Spring term, Junior year;* 3 *exercises per week. Required for a degree in Engineering courses.*

XVI. Thermodynamics.—As directly applied to the steam engine. Simple and compound engines. *Fall term, Junior year;* 3 *exercises per week. Required for a degree in Engineering courses.*

XVII. Steam Engineering.—Valve gears, regulators, condensers, power plants, tests. *Winter term, Junior year;* 3 *exercises per week. Required for a degree in Engineering courses.*

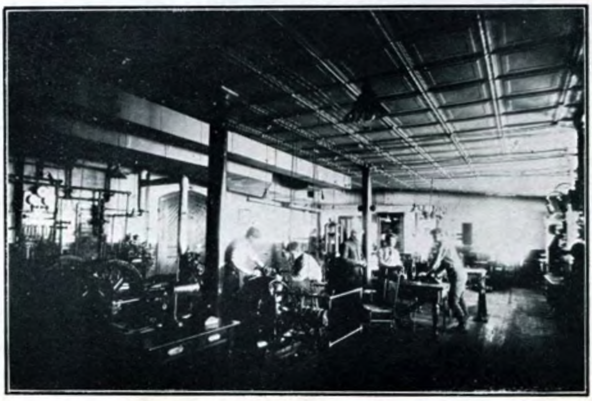
XVII. (A) Transporting Machinery.—*Fall term, Senior year;* 3 *exercises per week. Elective.*

XVIII. Strength of Materials.—Wood, iron, steel, alloys, brick, stone, and cements. *Fall term, Senior year;* 3 *exercises and* 1 *laboratory exercise of* 2 *hours per week. Required for a degree in Mechanical Engineering.*

XIX. Theoretical and Applied Mechanics.—Bodies at rest and in motion, friction of rest and motion, energy, work, and power. *Winter and Spring terms, Senior year;* 4 *exercises per week. Required for a degree in Mechanical Engineering.*

XXI. Hydraulics.—Flow of water through pipes, orifices, and sewers. Measurement of flow of rivers and streams. Water power and water supply. *Fall term, Senior year;* 3 *exercises per week. Required for a degree in Mechanical and Highway Engineering.*

XXII. Engineering Laboratory.—Physical tests of materials used in industries and in construction. Tests of machines and apparatus. *Spring term, Senior year;* 2 *lectures and* 1 *laboratory exercise per week. Required for a degree in Mechanical Engineering.*



PHYSICAL AND ELECTRICAL LABORATORIES.

XXIII. Mill Construction.—Lectures upon the structural development and design of shops and mills. *Winter term, Senior year;* 3 *exercises per week. Required for a degree in Mechanical Engineering.*

XXIII. (A) A Mill Equipment. *Winter term, Senior year;* 3 *exercises per week. Elective.*

XXIV. Metallurgy.—See Chemistry XIX. *Fall term, Junior year;* 3 *exercises per week. Required for a degree in Engineering courses.*

XXV. Textile Machinery.—Lectures upon types of machinery and processes for the manufacture of cotton and woolen goods. *Spring term, Senior year;* 3 *exercises per week. Elective in Mechanical Engineering course.*

XXVI. Engineering Laboratory.—3 *exercises per week. Elective, Senior year.*

XXVII. Industrial Economics.—Management of shops, tool-room systems, keeping of card records, contracts, and specifications, etc. *Three lectures per week. Required for a degree in Mechanical Engineering.*

Electrical Engineering.

PROFESSOR TOLMAN, MR. W. S. RODMAN.

The object of this course is to provide thorough preparation in the fundamental principles of this branch of engineering; to illustrate the application of these principles, as far as possible, in laboratory practice and by visits to electric power plants in other places.

The department is equipped with two water-tube boilers of sixty horse-power each; a fifty horse-power Armington and Sims's engine; one thirty Kilo Watt 1,000 volt single-phase alternating-current generator; one five Kilo Watt Westinghouse rotary converter; one 110 volt direct-current motor arranged with slip rings so that the machine may be used to generate single-phase or three-phase current as desired; two 110 volt direct-current generators—one 25 Kilo Watts, the other 8 Kilo Watts; one 3 Kilo Watt 110 volt direct-current motor; a storage battery of 108, 30 ampere-hour cells arranged so that different voltages may be obtained for testing purposes; transformers; condensers; Hewitt, arc and incandescent lamps; Thompson and Weston measuring instruments.

A photometry room has recently been fitted up for testing and comparing different forms of illuminating apparatus.

It is believed that this equipment is well selected to give a practical course in the manipulation of apparatus used in electrical engineering at the present time.

The arrangement of motive power in the laboratory is such that determination of the efficiency of an isolated plant may be made, including engine and boilers, as well as generators, and a test of the relative economy of the use of exhaust steam from such a plant for general heating purposes.

Subjects.

I. (A) Electricity and Magnetism (Thompson).—A study of the fundamental principles of the subject. *Fall term, Junior year;* 4 *exercises per week for students in Electrical and Mechanical Engineering.*

I. (B) The Dynamo (Hawkins and Wallis).—The design, construction, and care of the dynamo. *Winter term, Junior year;* 4 *exercises per week for students in Electrical and Mechanical Engineering.*

I. (C) Direct-Current Machinery (Sheldon and Mason).—*Spring term, Junior year;* 4 *exercises per week for students in Electrical and Mechanical Engineering.*

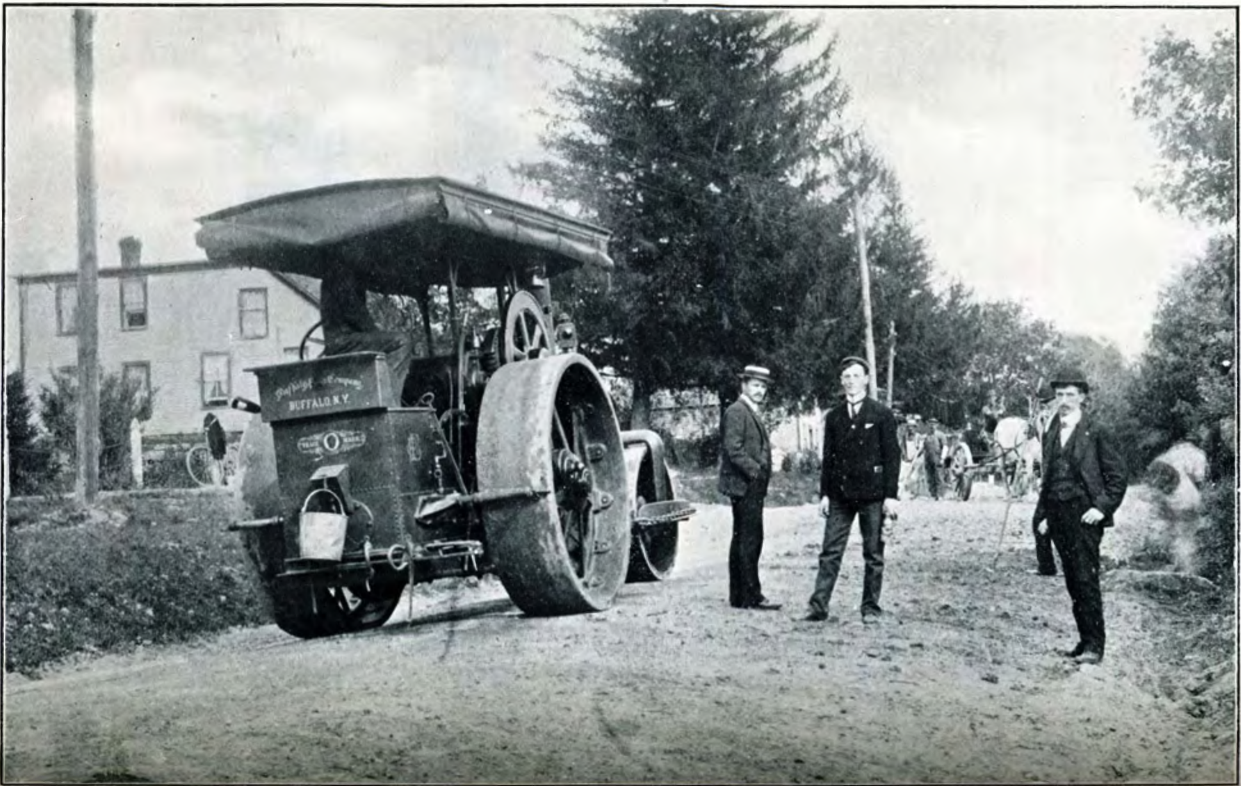
II. Alternating Currents and Alternating-Current Machinery.—This subject considers the theory of generation and utilization of alternating currents; the design, construction, and operation of single-phase and poly-phase alternating-current dynamos, motors, and transformers. Sheldon and Mason's Alternating Current Machines is completed and supplemented by lectures.

The laboratory work which accompanies the subject consists of the determination of the characteristics of alternating-current circuits having various combinations of inductance and capacity; the shape of E. M. F. and current waves of different machines; measurements of self-inductance, capacity, and mutual induction; measurements of power in single-phase and poly-phase circuits; measurements of total impedance in different circuits; determination of characteristics of alternators and rotary converters; complete tests of transformers, including those of core and copper losses, regulation, and efficiency. *Throughout the Senior year;* 4 *exercises per week for students in Electrical Engineering. Other students may elect the work as a three-hour subject.*

III. Telephones.—Lectures. *Winter and Spring terms;* 2 *exercises per week. Elective; open to Seniors and others who have had the equivalent Junior Electrical work.*

IV. Electric Lighting (Crocker).—A complete study of the subject of electric lighting. *Fall and Winter terms;* 2 *exercises per week. Elective; open to students in Electrical Engineering, Senior year.*

V. Design.—Design of a lighting system including a study of location and



ROAD BUILDING.

equipment of the central station, the distributing system, and cost of installation for arc and incandescent lighting. *Winter term; 2 exercises per week. Elective; open to students in Electrical Engineering, Senior year.*

VI. Power Distribution (Bell).—A study of different methods of power distribution with especial reference to the use of electricity as motive power. *Winter and Spring terms; 2 exercises per week. Elective; open to students in Electrical Engineering, Senior year.*

Highway Engineering.

PROFESSOR LEE.

Instruction in highway engineering is designed to equip students as practical working highway engineers. Connected as it is on the one side with work in mechanic arts, and on the other hand with the advancement of agriculture through better roads, the subject is peculiarly appropriate to this college. The interest in the road movement is increasing rapidly, and the supply of competent road engineers is not sufficient to meet even the present demand for them. This work is offered, therefore, with a good deal of confidence in its success, and recommended to young men who have the requisite scholarship to complete it, and who may develop the administrative skill necessary for road engineers.

The instruction given is essentially civil engineering adapted to highway construction. The adaptation consists partly in emphasizing throughout the work in the underlying principles of civil engineering those subjects that should enter directly into a road builder's training, such as, for instance, the geology of road materials. Then in the Senior year the students' efforts are concentrated mainly on the theory and practice of the construction, maintenance, and repair of roads in the United States. For the present the field work has been provided for by coöperation with the town of South Kingstown. It is fully recognized that the highway engineer must have a training in civil engineering, and further recognized that he must know how to *build roads*.

Subjects.

I. Surveying (Raymond).—Study of instruments, and simple surveying with the compass, level, and transit. The practice in the field includes laying out and dividing land, leveling for profiles, and simple city work. The true meridian is determined by the sun and polar star. The office work includes plotting and computing from the field notes taken in the above work, also determination of areas. *Sophomore year, Spring term; 4 exercises per week. Required of students in Electrical and Highway Engineering.*

II. Surveying.—Railroad work, including a reconnoissance, preliminary and location survey of a short line of railroad in vicinity of Kingston. A complete preliminary estimate of the cost of the line is made from the notes in the office in the winter, and finished plans drawn. Special attention is also given to surveying for street railroads and highway improvement. *Throughout the Junior year; 4 exercises per week. Required of students in Highway Engineering.*

III. (A) Masonry Structures (Baker).—This course deals with the materials of masonry, including brick, stone, lime, and cement; the theory of masonry structures, including foundations for buildings, bridges, and piers; the construction of retaining walls, culverts, bridge abutments; masonry dams and arches. The student is directed to important articles in the current literature of the subject, and laboratory work is performed at intervals, as facilities and ability of the student permit. *Winter term, Senior year; 3 exercises per week. Required of students in Highway Engineering.*

III. (B) Stereotomy (French and Ives).—This subject is designed to familiarize students with the preparation of drawings used in masonry structures, and the practical details of building stone masonry. *Fall term, Senior year; 3 exercises per week. Required of students in Highway Engineering.*

IV. (A) Graphic Statics (L. J. Johnson).—The student is taught the graphical method of treating construction problems. *Fall term, Senior year; 3 exercises per week. Required of students in Highway Engineering.*

IV. (B) Bridge Construction.—Following the general study of graphic methods, application is made to the construction of bridge trusses of various types. Highway bridges of steel, wood, and stone receive particular attention. *Winter term, Senior year; 3 exercises per week. Required of students in Highway Engineering.*

V. (A) Road-Building.—This is a course in practical highway work. It includes the application of engineering principles to the preliminary survey, and estimate of cost of building and rebuilding roads in town and country. The subjects of surfacing old and new roads with gravel or stone and the drainage and repair of them receive particular emphasis. The details of staking out-work, placing catch-basins, curbs, culverts, etc., and the crushing and rolling of stone are discussed. The student is directed to state and government reports and required to read selected topics in the literature of the subject. *Winter term, Senior year; 3 exercises per week. Required of students in Highway Engineering.*

V. (B) Field Work.—*Spring term; 12 hours' credit.*

Drawing.

PROFESSOR DRAKE, MISS ELDRED.

MECHANICAL DRAWING is required for a period of three years. Students keep notebooks, in which freehand sketches are made from models; and these sketches are afterward worked up into finished drawings. The making of working drawings for some machine completes the subject. Practice in tracing and blue-printing is given to all students. The drawing is designed to aid in the corresponding shop-work and not to produce professional draughtsmen.

FREEHAND DRAWING.—Freehand drawing is taught in the fall and spring terms and is required in the fall term, Freshman year. The required work comprises the study of perspective and form from models and objects. Electives are offered in cast drawing, pen drawing, painting, modeling, and the history of art. The department is well equipped with books and photographs, which are made more accessible to the student body by means of a series of small exhibitions of photographs illustrating the history of art accompanied by references to the library.

Subjects.

I. Freehand Drawing.—Outline drawing in pencil. *Fall term, Freshman year;* 1 *exercise of* 2 *hours per week for students in Agriculture and Science and* 2 *exercises for all Engineering students. Required of all candidates for a degree.* Miss Eldred.

II. Drawing in Charcoal from Still Life and the Cast.—*Spring term;* 3 *exercises of* 2 *hours per week. Elective.* Miss Eldred.

III. Drawing in Charcoal from Still Life and the Cast.—*Fall term;* 3 *exercises of* 2 *hours per week. Elective.* Miss Eldred.

IV. Modeling.—*Fall term;* 3 *exercises of* 2 *hours per week. Elective.* Miss Eldred.

V. Mechanical Drawing (For subjects in Mechanical Drawing, see Mechanical Engineering, page 50). Professor Drake.

VI. Pen Drawing, or Painting in Oil, Water-Color, or Pastel.—*Spring term;* 3 *exercises of* 2 *hours per week. Elective.* Miss Eldred.

VII. History of Art.—*Spring term;* 2 *exercises of* 1 *hour per week. Elective.* Miss Eldred.

Stenography and Typewriting.

MISS TOLMAN.

Stenography and typewriting are offered as electives. A thorough knowledge of the common English branches is required of everyone taking the subjects. The Benn Pitman system of stenography and either the touch or sight system of typewriting are taught. Absolute accuracy is required from the first in both subjects, and particular attention is paid to spelling and punctuation.

Subjects.

I. Elementary.—Instruction in principles; dictation. *Throughout the year; 4 exercises per week. Elective.*

II. Advanced.—Dictation, including the following: business letters, legal documents, terms used, deeds, wills, mortgages, contracts, declarations, etc.; hints useful in office work; general dictation. *Throughout the year; 3 periods per week. Elective.*

Military Science and Tactics.

PROFESSOR LEE.

All men college students are required to attend classes in military instruction for three years, or such portion thereof as the student is in college, unless excused by reason of physical disability. Credit is given for this work, and the same regulations of attendance are in force as for other subjects.

The war department furnishes for use in this instruction cadet rifles, equipments, sabres, ordnance, and details an officer of the army to act as instructor when the number of cadets is one hundred or more. The cadets are organized this year into a battalion of two companies of infantry, and detachments are made for artillery drill. Theoretical instruction is by means of lectures and recitations. The military exercises improve the physique, inculcate habits of prompt obedience and courtesy, and have an elevating influence on the conduct of the cadets.

VISTAS

The organization is as follows:

R. H. Lee	Commandant.
H. L. Gardiner	Major.
W. S. Kendrick	Captain.
C. L. Coggins	Captain.
A. H. Barber	1st Lieutenant and Adjutant.
D. R. Kellogg	1st Lieutenant and Quartermaster.
H. R. Lewis	1st Lieutenant.
J. D. Drew	1st Lieutenant.
L. G. Schermerhorn	2nd Lieutenant.
C. H. Field	2nd Lieutenant.
T. C. Brown	Sergeant-Major.
G. W. Sheldon	Quartermaster-Sergeant.
H. E. Fitz	1st Sergeant.
F. K. Crandall	1st Sergeant.
A. E. Gory	2nd Sergeant.
A. R. Knight	2nd Sergeant.
H. A. Fiske	3rd Sergeant.
L. A. Whipple	3rd Sergeant.
Lewis Slack	Corporal.
H. W. Gardiner	Corporal.
M. G. Ingalls	Corporal.
C. W. Mitchell	Corporal.
G. N. Lythgoe	Corporal.
R. F. Gardiner	Corporal.
C. H. Birkby	Bugler.
W. J. Moran	Bugler.

Subjects.

I. Practical Instruction, Drills, and Exercises.—Infantry Drill Regulations, U. S. Army. *Three exercises of* 1 *hour each per week throughout the year. All the command.*

II. Recitations and Lectures in Infantry Drill.—Regulations and Elements of Military Science. *One exercise per week, entire year; Sophomores.*

III. Recitations and Lectures in Infantry Drill.—Regulations and Elements of Military Science.—*One exercise per week, entire year; Freshman.*

The Courses of Study Leading to a Degree.

EXPLANATORY.—The Roman numeral following a subject refers to the subject number; the Arabic figures next following indicate the page of the catalogue on which the subject is described. The last Arabic figure indicates the number of hours credit for the subject. By advice of the committee on courses of study, French may be substituted for German for the language requirement. Consulting with the committee on courses of study, the student chooses his electives from the subjects described on pages 31–58.

Freshman Year.

Agriculture and Courses in Science.

Fall.	Winter.	Spring.
English II (44)............ 2	English II (44).......... 2	English II (44)........... 2
German I (44)............ 4	German I (44)........... 4	German I (44)............ 4
Mathematics VI (48)....... 3	Mathematics IV (47)..... 4	Mathematics V (47)....... 4
Physics I (33)............. 3	Physics I (33)........... 3	Physics I (33)............ 3
Chemistry I (31).......... 3	Chemistry I (31)......... 3	Chemistry I (31)......... 3
Freehand Drawing I (56)... 1	....	....
Military Drill and Science.. 2	Military Drill and Science. 2	Military Drill and Science.. 2

Courses in Engineering.

English II (44)............ 2	English II (44).......... 2	English II (44)........... 2
German I (44)............ 4	German I (44)........... 4	German I (44)............ 4
Mathematics VI (48)....... 3	Mathematics IV (47)..... 4	Mathematics V (47)....... 4
Chemistry I (31).......... 3	Chemistry I (31)......... 3	Chemistry I (31).......... 3
Mechanics VIII (50)....... 1	Mechanics VIII (50)...... 1	Mechanics IX (50)........ 1
Freehand Drawing I (56)... 2	Mechanics I (50)......... 2	Mechanics I (50).......... 2
Military Drill and Science... 2	Military Drill and Science. 2	Military Drill and Science.. 2

Sophomore Year.

Agriculture and Courses in Science.

Fall.		Winter.		Spring.	
English III (44)	2	English III (44)	2	English III (44)	2
German II (44)	3	German III (44)	3	German III (44)	3
Chemistry II (31)	3	Chemistry II(31)	3	Chemistry IV (31)	3
Zoölogy I (B) (37)	3	Zoölogy I (B) (37)	3	Zoölogy I (B) (37)	3
Botany I (35)	3	Botany I (35)	3	Botany I (35)	3
Elective	3	Elective	3	Elective	3
Military Drill and Science	2	Military Drill and Science	2	Military Drill and Science	2

Courses in Engineering.

English III (44)	2	English III (44)	2	English III (44)	2
German II (44)	3	German III (44)	3	German III (44)	3
Chemistry II (31)	3	Chemistry II (31)	3	Physics II (33)	4
Physics II (33)	4	Physics II (33)	4	Mathematics VIII (48)	3
Mathematics VII (48)	3	Mathematics VII (A) (48)	3	Mechanics III (50)	3
Mechanics II (50)	3	Mechanics IV (50)	3	Highway Engineering I(54)	4
Military Drill and Science	2	Military Drill and Science	2	Military Drill and Science	2

Junior Year.

Agriculture.

Fall.		**Winter.**		**Spring.**	
English IV (44)	2	English IV (44)	2	English IV (44)	2
Agriculture I (A) (40)	3	Agriculture II (40)	3	Agriculture II (40)	3
Military Drill and Science	2	Military Drill and Science	2	Military Drill and Science	2
Elective	12	Elective	12	Elective	12
(At least eight hours must be chosen from subjects bearing directly on Agriculture.)		(At least eight hours must be chosen from subjects bearing directly on Agriculture.)		(At least eight hours must be chosen from subjects bearing directly on Agriculture.)	

Biology.

English IV (44)	2	English IV (44)	2	English IV (44)	2
Biology	6	Biology	6	Biology	6
(Credit will be given for all courses in Zoölogy and Botany, and for Horticulture VI.)		(Credit will be given for all courses in Zoölogy and Botany, and for Horticulture VI.)		(Credit will be given for all courses in Zoölogy and Botany, and for Horticulture VI.)	
Military Drill and Science	2	Military Drill and Science	2	Military Drill and Science	2
Elective	9	Elective	9	Elective	9

Chemistry.

English IV (44)	2	English IV (44)	2	English IV (44)	2
Chemistry V (A) (31)	3	Chemistry V (A) (31)	3	Chemistry V (A) (31)	3
Chemistry V (B) (32)	3	Chemistry V (B) (32)	3	Chemistry V (B) (32)	3
Chemistry VI (32)	4	Chemistry VI (32)	4	Chemistry VII (32)	3
Chemistry III (31)	3	Chemistry VIII (32)	2	Chemistry X (32)	1
Military Drill and Science	2	Chemistry IX (32)	3	Chemistry XI (32)	1
Elective (not a Chemical subject)	3	Military Drill and Science	2	Chemistry XII (32)	3
		Elective (not a Chemical subject)	3	Military Drill and Science	2
				Elective (not a Chemical subject)	3

General Science.

Fall.		Winter.		Spring.	
English IV (44)	2	English IV (44)	2	English IV (44)	2
Military Drill and Science	2	Military Drill and Science	2	Military Drill and Science	2
Elective	15	Elective	15	Elective	15
(A minimum of six hours of Science must be chosen.)		(A minimum of six hours of Science must be chosen.)		(A minimum of six hours of Science must be chosen.)	

Mechanical Engineering.

English IV (44)	2	English IV (44)	2	English IV (44)	2
Mathematics VIII (48)	3	Mathematics VIII (48)	4	Mathematics IX (48)	4
Mechanics V (50)	1	Mechanics V (50)	2	Mechanics V (50)	3
Mechanics XI (51)	2	Mechanics X (51)	2	Mechanics XIII (51)	3
Mechanics XVI (51)	3	Mechanics XIII (51)	2	Mechanics XV (51)	3
Chemistry XIX (32)	3	Mechanics XVII (51)	3	Electrical Engineering I (C) (53)	4
Electrical Engineering I (A) (53)	4	Electrical Engineering I (B) (53)	4	Military Drill and Science	2
Military Drill and Science	2	Military Drill and Science	2		

Electrical Engineering.

English IV (44)	2	English IV (44)	2	English IV (44)	2
Mathematics VIII (48)	3	Mathematics VIII (48)	4	Mathematics IX (48)	4
Mechanics V (50)	1	Mechanics XIII (51)	2	Mechanics XIII (51)	2
Mechanics XVI (51)	3	Mechanics XVII (51)	3	Mechanics XV (51)	3
Chemistry XIX (32)	3	Electrical Engineering I (B) (53)	4	Electrical Engineering I (C) (53)	4
Electrical Engineering I (A) (53)	4	Electrical Engineering	3	Electrical Engineering	3
Electrical Engineering	3	Military Drill and Science	2	Military Drill and Science	2
Military Drill and Science	2				

Highway Engineering.

English IV (44)	2	English IV (44)	2	English IV (44)	2
Mathematics VIII (48)	3	Mathematics VIII (48)	4	Mathematics IX (48)	4
Mechanics XVI (51)	3	Mechanics XVII (51)	3	Mechanics XV (51)	3
Chemistry XIX (32)	3	Chemistry IX (32)	3	Geology IV (34)	3
Highway Engineering II (55)	4	Highway Engineering II (55)	4	Highway Engineering II (55)	4
Military Drill and Science	2	Military Drill and Science	2	Military Drill and Science	2
Elective	3	Elective	3	Elective	3
		(Electrical Engineering I (B) is recommended as an elective.)		(Electrical Engineering I (C) is recommended as an elective.)	

Senior Year.

Agriculture.

Fall.	Winter.	Spring.
History V (46)............ 3	Economics I (46)........ 3	Economics I (46)......... 3
Elective..................14	Elective.................14	Elective..................14
(At least eight hours must be chosen from subjects bearing directly on Agriculture.)	(At least eight hours must be chosen from subjects bearing directly on Agriculture.)	(At least eight hours must be chosen from subjects bearing directly on Agriculture.)

Biology.

History V (44)............ 3	Economics I (46)........ 3	Economics I (46)......... 3
Biology.................. 9	Biology................. 9	Biology.................. 9
(Credit will be given for all courses in Zoölogy and Botany, and for Horticulture VI.)	(Credit will be given for all courses in Zoölogy and Botany, and for Horticulture VI.)	(Credit will be given for all courses in Zoölogy and for Botany, and for Horticulture VI.)
Elective.................. 3	Elective................ 3	Elective................. 3

Chemistry.

History V (46)............ 3	Economics I (46)........ 3	Economics I (46)......... 3
Chemistry XIII (32)....... 3	Chemistry XIII (32)...... 3	Chemistry XVII (32)...... 3
Chemistry XIV (32)....... 5	Chemistry XX (A) (33)... 3	Special Chemistry......... 3
Chemistry XII (32)........ 3	Chemistry XVIorXVIII(32) 3	Chemistry XX (33).........
Chemistry XX (33)...........	Chemistry XX (33).......	Elective................. 6
Chemistry XVI or XIX (32) 3	Elective................ 3	
	(To be chosen from the following: History II, IV, French, German, Psychology.)	(To be chosen from the following: History II, IV, French, German, Psychology, Chemistry XV.)

General Science.

History V (46)............ 3	Economics I (46)........ 3	Economics I (46)......... 3
Elective..................12	Elective................12	Elective.................12
(A minimum of six hours of Science must be chosen.)	(A minimum of six hours of Science must be chosen.)	(A minimum of six hours of Science must be chosen.)

Mechanical Engineering.

Fall.		Winter.		Spring.	
History V (46)	3	Economics I (46)	3	Economics I (46)	3
Mechanics XIII (51)	3	Mechanics XIII (51)	3	Mechanics XIX (51)	4
Mechanics XVIII (51)	4	Mechanics XIX (51)	4	Mechanics XXII (51)	3
Mechanics XXI (51)	3	Mechanics XXIII (52)	3	Mechanics XXVII (52)	3
Elective	3	Elective	3	Elective	3
(To be chosen from the following: Mechanics XVII (A), XXVI, Electrical Engineering II, Highway Engineering.)		(To be chosen from the following: Mechanics XVIII (A), XXVI, Electrical Engineering II, Highway Engineering.)		(To be chosen from the following: Mechanics XXV, XXVI, Electrical Engineering II, Highway Engineering.)	

Electrical Engineering.

History V (46)	3	Economics I (46)	3	Economics I (46)	3
Electrical Engineering II (53)	4	Electrical Engineering II (53)	4	Electrical Engineering II (53)	4
Designing	3	Mechanics XV (51)	3	Inspection Excursions	
Elective	6	Elective	6	Elective	6

Highway Engineering.

History V (46)	3	Economics I (46)	3	Economics I (46)	3
Mechanics XVIII (51)	4	Highway Engineering III (A) (55)	3	Highway Engineering V (B) (55)	12
Mechanics XXI (51)	3	Highway Engineering V (A) (55)	3		
Highway Engineering III (B) (55)	3	Highway Engineering IV (B) (55)	3		
Highway Engineering IV (A) (55)	3				

[illegible]

THE PREPARATORY SCHOOL.

The Preparatory School

OF THE

Rhode Island College of Agriculture and Mechanic Arts.

This school is immediately connected with the college, is under the same government, and, as far as possible, gives to its students the same facilities of library and laboratories.

The preparatory school has two lines of work:

1. The Preparatory Course.
2. The Industrial High School.

These two courses are more fully explained on this and subsequent pages.

The Preparatory Course.

The course is intended for young men and women who have not the advantages offered by a high school in their home town, and also for those who because of maturity are out of touch with the schools of their neighborhood. Pupils are prepared for the Freshman class in the college.

Entrance Requirements of the Preparatory School.

First-Year Class.

For admission to the first year in the preparatory school examinations are given in arithmetic, geography, English grammar, and United States history. The arithmetic examination covers common and decimal fractions, denominate numbers, percentage, and interest. For the examinations in English grammar and United States history students are recommended to study books of the same grade as Whitney and Lockwood's English grammar and Fiske's United States history. In English each candidate is required to answer certain questions in grammar, and to write a short composition correct in spelling, capitalization, punctuation, and paragraphing. Candidates are expected to show familiarity with the following works: Hawthorne's The Great Stone Face and The Snow Image; Tennyson's Idyls of the King; DeFoe's Robinson Crusoe; The Arabian Nights; Macaulay's Lays of Ancient Rome.

Second-Year Class.

Students wishing to enter the second-year class are examined in geography, United States history, advanced arithmetic, algebra to quadratics, and English. In 1906–1907 the English requirements will cover Shakespeare's The Merchant of Venice, Macbeth, and Julius Cæsar; Addison's The Sir Roger De Coverley Papers; Scott's Ivanhoe; Eliot's Silas Marner; Lowell's The Vision of Sir Launfal; Coleridge's The Ancient Mariner.

Admission without Examination.

Any mature person who can satisfy the examining committee that he has the capacity to do the work, may enter on probation and take the examination later.

Program of Study.*

First-Year Preparatory.

	Exercises per week.
Algebra (Hall & Knight). To Quadratics	5
English { Review of Grammar. College Requirements in Literature. }	5
General History (Myers), entire book	3
Plant Life (Bailey's Botany)	3
Military Drill or Gymnasium	1
Mechanical Drawing, or { Clay Modeling, Fall and Spring. Woodcarving, Winter.	1

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* Two laboratory periods or three periods of military drill count as one exercise.

Second-Year Preparatory.

Algebra. From Quadratics	2
Geometry (Hobbs). Plane Geometry with original demonstrations	4
English. College entrance requirements completed	3
Latin (Collar & Daniell's First Year Latin), entire book. Via Latina, twenty-five pages	5
Physics	2
Military Drill, or Gymnasium,	1
Carpentry,* or Freehand Drawing, Fall and Spring. Woodcarving, Winter.	1

Regulations of the Preparatory School.

Unexcused Absences.—Section 1. No "cuts" are allowed. In case a student is detained at home by sickness or for any other reason, a blank will be sent to the parent or guardian to be filled out excusing the absence. Pupils who find it necessary to be absent while at the institution, will notify the master of the preparatory school in writing before the absence occurs.

Conditions.—Section II.—Students having two or more conditions at the beginning of the fall term, provided these are not all in the same subject, will be required to repeat the work of the year except in those subjects in which they have a year's average of B (80).

Diplomas.

Pupils are awarded diplomas upon completing the regular work of the preparatory school.

Correspondence relating to work in the preparatory school should be directed to M. H. Tyler, Kingston, R. I.

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*Students who have not completed the work in mechanical drawing take that in the place of carpentry.

The Industrial High School.

The college has arranged to give a series of four courses, each of two years, in the following industrial lines:

- I. CARPENTRY.
- II. MACHINE SHOP.
- III. MECHANICAL DRAUGHTING.
- IV. STEAM ENGINEERING.

These courses consist of a moderate amount of study in the preparatory school, and a large amount of practice in the college shops or draughting-room. They are planned to meet the needs of those young men who are unable to spend four years or more to complete the regular engineering course, and who need to begin their lifework early.

Requirements for Admission.

The requirements for admission are those for admission to the first year of the preparatory school (see pages 67–68). With the consent of the examining committee a mature person who has not recently attended school may, without examination, enter on probation.

Subjects of Study.

Instruction is given in English, algebra, geometry, physics, and military science.

Those who select one of the shop courses are required to take a short course in mechanical drawing, and likewise those who may enter the draughting course are to spend some time in the shops. About one-third of the time for the two years is spent in study and two-thirds in shopwork or drawing. It is expected that only those persons who have a special desire or natural inclination for mechanics will enter these courses. Such a student, by two years of faithful work, can acquire the principles and practice of a trade and, at the end, take a place in a shop as a journeyman at good wages.

Program of Study.*

All subjects continue throughout the year.

First Year.

	Exercises per week.
Algebra (Hall & Knight)	5
English. Covers requirements for admission to first year, preparatory school	4
Drawing	3
First term; freehand, principles of projection, lettering. Second term; geometrical problems, use of instruments. Third term; machine details, tracing.	
Shop Practice	3
The student elects this work in carpentry, machine shop, mechanical draughting, or steam engineering.	
Military Drill	1

Second Year.

Geometry (Hobbs). Plane Geometry	4
English	3
Physics	2
Lectures	3
Shop Practice and Mechanical Drawing	5
The student continues in the same line of manual work elected the first year.	
Military Drill	1

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* Two laboratory periods or three periods of military drill count as one exercise.

EXTENSION WORK.

Extension Work

OF THE

Rhode Island College of Agriculture and Mechanic Arts.

The purpose of extension work in agriculture is to carry the instruction of the college to those who can not come to it for study. Whenever necessary and possible, visits will be made to any part of the state to examine farms, orchards, and gardens, to identify injurious insects or plant diseases, or give instruction in regard to methods of treatment, or to examine soils with a view to suggesting remedies for lack of fertility. General plans for laying out farms and for carrying out the details of any farm operations will be given the fullest consideration. The college is open for consultation at any time in regard to any problem of the farm, garden, or orchard. The fullest correspondence is invited and conscientious consideration will be given to every letter received.

Whenever possible, arrangements will be made for lectures or demonstrations by members of the college faculty or experiment-station staff when called for at any agricultural meeting or neighborhood gathering. Coöperative experiments will be arranged to help the farmer solve the problems which are peculiar to his own farm or his portion of the state, and for the purpose of teaching some of the principles which have been worked out at the experiment stations of this and other states. As part of the work for the present season, such experiments will be outlined along the following lines: 1. Remedies for the San José scale and other injurious insects and plant diseases; 2. Treatment of greenhouse insects with hydrocyanic acid gas; 3. Liming and the use of fertilizers which the Rhode Island experiment station has discovered to be efficient.

From time to time, as funds will permit, special lecturers will be engaged to address granges, horticultural societies and other organizations interested in agriculture, on various timely topics.

Such lectures will generally be given free of charge. Members of the faculty have prepared lectures on various subjects, which they are ready to deliver at any place in the state. These lectures are free, the only charge being the traveling expenses of the speaker.

An important part of this extension work is to be the encouragement of home study and the conducting of correspondence courses. For the present, time and funds will not permit the carrying out of this plan, but advice will be given to any person wishing to take up home study, regarding courses of reading, books and other literature which may be necessary in connection with such work.

Another important phase of nature study, which aims to interest the young people of the schools in things of nature and of the farm, is

The Nature Guard.

The nature guard is an organization of young people formed for the purpose of awakening in its members a livelier interest in the things of outdoor life. Its object is to stimulate the power of observation and to lay the foundation for a simple, rational education, which shall give the individual a love for nature and a sympathy with his environment, and furnish him with the means of making life more useful and more enjoyable, whether lived in the country or in the city.

The boys and girls in one school, or in one room, if the school is graded, form themselves into a band and elect officers, which are a spy and a guardian. This band fixes its own time for meeting and adopts its own methods of procedure. Enrollment cards to be signed and returned are furnished from the college. A printed leaflet is issued monthly during the school year, and a copy is sent to each member of the Nature Guard and also, on request, to individuals who are interested. The purpose of the leaflet is to furnish a stimulus to nature-study by making each month some suggestions bearing on the subject. Monthly reports, giving observations of their own, are asked from the members. Supplemental leaflets for teachers will be issued from time to time, the object of which will be to call attention to the latest views and methods in nature-study.

During the past year a new charter has been designed and all old bands, and bands which will be organized in the future, will receive a copy upon completing enrollment. Each member who sends in an enrollment card will receive an appropriate lapel button indicating that he belongs to the Nature Guard. At the end of the year, a neat certificate will be forwarded to all who have sent in reports during the year.

In connection with nature-study work, advice and assistance will be given to schools, to children's organizations, and to individual boys and girls who wish to carry on work with children's gardens. Where a number of gardens are placed together, as in schools or in boys' clubs, the college will send an instructor to teach methods of preparing the ground, planting, cultivating, and harvesting garden crops. Individuals will be given advice by circulars and by correspondence. Application has been made to the Washington County Agricultural Society to grant premiums to children for seed and plant collections and for exhibits of a few vegetables which can be easily grown, either in school or home gardens.

Further notes in regard to this work are given in leaflets and circulars issued by the Extension Department, and correspondence is solicited from any one who may be interested.

Nature-Guard Bands.

Bright Eyes Band, Hope, R. I. William F. Littlefield, Teacher; Alice O. Rourke, Spy; Julia M. Conlin, Guardian.

Emerson Band, Phenix, R. I. Mary L. Kimball, Teacher; Frederick R. Tew, Spy; Eva M. Snell, Guardian.

Family Band, Peru, Maine. Mrs. M. V. Hall, Mother.

Four-Leaf Clover, 5th Avenue, Pittsburgh, Pa. Miss Isabel Blair, Guardian.

Greenwood Band, Normal Grammar School, Providence, R. I. Mary L. Brown, Teacher; Dyer Whipple, Spy; Katie Marshall, Guardian.

Kingston, R. I. Professor Rice, Teacher; Lorenzo Kinney, Spy; Gladys Hartwell, Guardian.

Lookout Band, Peace Dale, R. I. Cora L. Sheldon, Teacher; Magdeline Brennan, Spy; Lucretia Brown, Guardian.

Mayflower Band, Madison, Conn. Jennie T. Hill, Teacher; Emma Leete, Spy; Emily Kashamer, Guardian.

Mayflower, Casco, Maine. B. M. Phillips, Teacher; George Burgess, Spy; Lucy Edwards, Guardian.

Myrtle Band, Lynn, Mass. J. F. Callahan, Teacher; Edith Howard, Guardian.

Nature Seekers, Abbott Run, R. I. H. W. Bishop, Teacher; Gladys I. Cargill, Spy; Abbie I. Reed, Guardian.

Nature's Spies, Riverpoint, R. I. M. G. Greene, Teacher; Willard Searle, Spy; Mildred Tobin, Guardian.

Peace Band, Providence, R. I. Miss Fletcher, Teacher; Harold Kelley, Spy; Eleanor Drury, Guardian.

Seekers, The, Lynn, Mass. Mrs. E. T. Chamberlin, Mother.

Star Band, Kingston, R. I. Mary D. Whaley, Teacher; Dana Card, Spy; Sanger Curtice, Guardian.

Sylvan Band, Sylvania, Pa. Mrs. Florence Card, Mrs. Alice Bradford, Teachers; Christine Waldo, Spy; Hannah Suckey, Guardian.

The Maple-Tree Band, Usquepaugh, R. I. Miss Clara E. Webster, Teacher; Willie H. Locke, Spy; Maria E. Hazard, Guardian.

The Outdoor Band, Alinda School, 5th Avenue, Pittsburgh, Pa. Anna Turner, Spy; Elizabeth Macfarlane, Guardian.

Wide-Awake Band, Providence, R. I. Maud W. Hersey, Teacher; John O'Neill, Spy; George Mycroft, Guardian.

Wide-Awake Band, Riverpoint, R. I. Jeanne M. M. Deering, Teacher; Ray Carpenter, Spy; Katherine Farrell, Guardian.

Wide-Awake Band, Yantic, Conn. Maria M. Allyn, Teacher; Alice Maine, Spy; Shirley Miner, Guardian.

Religious Organizations.

Young Men's Christian Association.

Albert Edmund Wilkinson	President.
Jay Russell Ferry	Vice-President.
Calvin Lester Coggins	Secretary.
Harry Reynold Lewis	Treasurer.

Young Women's Christian Union.

Marion Graham Elkins	President.
Cora Edna Sisson	Vice-President.
Bernice Eugenia Sisson	Secretary.
Ruby Belle Rockwell	Treasurer.

Alumni Association.

Henry Maxson Brightman, 1900 Detroit, Mich.	President.
George Washington Barber, 1898 Shannock, R. I.	Vice-President.
Lillian Mabelle George, 1899 Kingston, R. I.	Secretary-Treasurer.

Executive Committee.

H. M. Brightman, 1900,
G. W. Barber, 1898,
L. M. George, 1899,
Ebenezer Payne, 1899,
Jean Gilman, 1905.

Students.

Seniors.

Arnold, Benjamin Howard, El. Eng	East Greenwich.
Berry, Wallace Noyes, El. Eng	Pocasset, Mass.
Elkins, Marion Graham, Gen. Sci.	Amesbury, Mass.
Harding, Lee LaPlace, Highway Eng	Lyme, Conn.
Keyes, Frederick George, Chem	Rochester, N. Y.
Nichols, Howard Martin, El. Eng	Kenyon.
Sisson, Cora Edna, Gen. Sci	Wickford.
Wilkinson, Albert Edmund, Agr.	Dorchester Center, P. O., Boston.

Juniors.

Barber, Arthur Houghton, Mech. Eng	East Greenwich.
Coggins, Calvin Lester, El. Eng.	Sharon, Mass.
Ferry, Jay Russell, Highway Eng.	Palmer, Mass.
Kellogg, David Raymond, Chem.	New London, Conn.
Kendrick, Winfield Smith, El. Eng	South Chatham, Mass.
Lamond, John Kenyon, El. Eng	Usquepaugh.
Lewis, Harry Reynold, Agr.	Providence.
Macomber, Miner Sanford, Chem	Hartford, Conn.
Tucker, Ethel Aldrich, Gen. Sci.	Kingston.

Sophomores.

Davis, Augustus Boss	Kingston.
Drew, Joseph Drake	Brockton, Mass.
Field, Clesson Herbert	Brockton, Mass.
Fiske, Herbert Andrew	East Providence.
Fitz, Arthur Edward	Pascoag.
Gardiner, Harold Lincoln	Wakefield.
Gardiner, Robert Franklin	Wakefield.
Gory, Edward Allen	Pascoag.
Kenyon, Susan Elnora	Usquepaugh.
Lee, Alfred Rogers	Greenwood, Mass.
Mitchell, Clovis William	Harrisville.
Sheldon, George Ware	Wakefield.
Sherman, Mary Albro	Lehigh Hill, Portsmouth.
Smith, John Lebroc	Narragansett Pier.
Whipple, Lucius Albert	Greenville.

Freshmen.

Caton, Earle Francis	Edgewood.
Craig, James McIntyre	Riverpoint.
Crandall, Fred Kenyon	Westerly.
Der Mugerditchyan, Berge Stephen	New York City.
French, Henry Frank	East Providence.
Gardiner, Henry Wallace.	Wakefield.
Grinnell, Jason Percival	Middletown.
Howe, Albert Mendel	Brockton, Mass.
Holton, Carl Russell	Boothbay Harbor, Me.
Knowles, Walter	Kingston.
Moran, Walter John	New London, Conn.
Rockwell, Ruby Belle	Sylvania, Penn.
Schermerhorn, Lyman Gibbs	Kingston.
Smith, Elmer Francis	East Lyme, Conn.
Tisdale, Harry Robert	New London, Conn.
Tucker, Ellen Capron	Kingston.
Yorganjian, Martin	Providence.

Specials.

Bosworth, Harold Irton	Providence.
Bezanson, Claude	Somerville, Mass.
Buchanan, Sarah, Agr	Cohoes, N. Y.
Fitts, John Nelson, Mech. Eng	Warehouse Point, Conn.
Ingalls, George Maurice	Kingston.
Lythgoe, George Walter	Winthrop, Mass.
MacMillan, Jessie Joy	Kingston.
Polk, William Carson	Providence.
Sisson, Bernice Eugenia	White Rock.
Slack, Lewis	Kingston.
Slocum, Percy Wilfred	Kingston.
Smith, James Campbell	Manville.
Thayer, Chester Arthur	Woonsocket.
Tucker, Hannah Mahala	West Kingston.
Townsend, Adolph Lawrence, Agr	Brooklyn, N. Y.
White, Frederick Peirce, Chem	Pawtucket.

Preparatory School.

Akers, Arthur Clerence	Charlestown.
Akers, Mary Louise	Charlestown.
Albro, Harford Harold	Providence.
Andrews, Carmen Nichols	Slocums.
Birkby, Charles Hartley	Carolina.
Briggs, Sarah Elsie	Kingston.
Bristle, Fred Williams	Carolina.

Browne, Mary Katharine	Providence.
Browne, Thomas Clarke, Jr	East Greenwich.
Brownell, Ralph Herbert	Little Compton.
Bullock, Rhoda Bishop	Wakefield.
Comber, Edward Anthony	Narragansett Pier.
Curtice, Anna Helena	Kingston.
Daniels, Willis Washington	Pawtucket.
Dexter, Leon Arthur	Moosup Valley.
Fitzpatrick, James Thomas	Carolina.
Fitzpatrick, Margaret Cecilia	Carolina.
Gilman, M. Elvin	Gilman, Me.
Givrigian, Sirabeon Vartan	Garin, Armenia.
Harris, Burton Kenneth	Lime Rock.
Harris, Gertrude Alice	Lime Rock.
Hutchings, George Thomas	Niantic.
Kent, Rachel Evelyn	Kingston.
Kenyon, Amos Harris	Usquepaugh.
Knight, Arthur Rhodes	East Greenwich.
Knight, Richard Greene Howland	East Greenwich.
Lamond, Helen Scott	Usquepaugh.
Lewis, George Mitchell	Kingston.
Mays, William Clark Stevens	Edgewood.
McKay, Ernest Alfred	New Dorchester, Mass.
Mitchell, Irving Calvary	Harrisville.
Mounce, Leroy Leidman	Marshfield, Mass.
Primeau, Marguerite Malissa	Wakefield.
Quarters, Thomas Joseph	Adamsville.
Quinn, Stephen	Wakefield.
Rollinson, Florence	Wakefield.
Sherman, Julia Frances	West Kingston.
Slack, Charles Gorham	Kingston.
Stubbs, Paul Thomas	Thomaston, Conn.
Suros, Obdulio Reyes	Manzanillo, Cuba.
Taylor, Walter Gray	Middletown.
Tsanoff, Lubomir Andrea	Plovdiv, Bulgaria.
Tucker, Harriet Tabor	West Kingston.
Warner, David Edmond, Jr	Bridgeton.
White, George Arthur, Jr	East Greenwich.
Wood, Edith Channing	Slocums.

Course in Poultry-Keeping.

Bosworth, Harold Irton	Providence.
Caron, Fred	Brownington, Vt.
Damon, Ralph Corey	Ashby, Mass.
Easton, Mrs. Eliza Tourtellot	Providence.
Eckhart, Harry Smith	East Greenwich.
Graves, Clarence Henry	Wakefield.

Hartman, Hugh	Encampment, Wyo.
Johnstone, Fred Wheeler	Everett, Mass.
Julien, Jules	New Brunswick, N. J.
Kirkpatrick, William Franklin	Kingston.
Lee, Alfred Rogers	Greenwood, Mass.
Lehman, Otto G.	Sibley, Ia.
Lipsky, Aaron	Morris Plains, N. J.
McDunnough, Annie Loretto	Griscolt, Ontario, Can.
Otis, Charles Preston	Florence, Mass.
Oliver, Emanuel William	East Providence.
Schmincke, Adolf	Roselle, N. J.
Stocker, John Edwin	Oromucto, N. B., Can.
Schmitz, Eugene Alfons Richard	Hathorne, Mass.
Tallman, John Clarence	Slocums.
Townsend, Adolph Lawrence	Brooklyn, N. Y.
Tsanoff, Lubomir Andrea	Plovdiv, Bulgaria.
Weeden, James Vaughan	Wakefield.
Williams, Mary E.	East Mansfield, Mass.

Total number of students (none counted twice)	131

Graduates.*

1894.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
Adams, George Edward Kingston.	Agr.	Assistant in charge of Field Experiments, R. I. Agr. Experiment Station.
Ammonds, George Clarence 5 Boylston Place, Boston, Mass.	Mech.	Railroad Postal Clerk, on N. Y., N. H. & H. R. R.
Arnold, Chapin Trafford 52 Wood St., Providence.	Agr.	Electrician, Office 283 Westminster St., Room 10, Providence.
Burlingame, George Washington Sturbridge, Mass.	Agr.	Bookkeeper, American Optical Co., Lensdale, Mass.
Clark, Helen May B. L., Smith College, 1899. 12 East 70 St., N. Y. City.		Private Secretary.
Knowles, John Franklin Kingston.	Mech.	Assistant Wood-Working Dept., R. I. C. A. & M. A.
Madison, Warren Brown Intervale, N. H.	Agr.	Farmer.
Mathewson, Ernest Hoxsie Ph. B., Brown University, 1896. West Appomatox, Va.	Mech.	Tobacco Expert, U. S. Department of Agriculture.
Peckham, Reuben Wallace Melville Station, Newport.	Agr.	Market Gardener.
Rathbun, William Sherman Wakefield.	Agr.	Practicing Veterinary.
Rodman, George Albert Providence.	Mech.	Division Engineer's Office, N. Y., N. H. & H. R. R. Co.
Sargent, Charles Lawrence Ph. D., University of Pennsylvania, 1900. Newark, New Jersey.	Agr.	Chemist, Murphy Varnish Co.
Slocum, Samuel Watson 130 West Broad St., Westerly.	Agr.	Carpenter.
Spears, John Barden South Scituate, R. F. D.	Agr.	Farmer.

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* It is earnestly desired that the graduates inform the Alumni Bureau of any permanent change of address.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
Sweet, Stephen Adelbert Slocums.	Agr.	Farmer.
Tucker, George Mason Ph. D., Göttingen, 1899. Blodgett, Missouri.	Agr.	Proprietor, Plant-Breeding Farm.
Wilber, Robert Arthur East Greenwich.	Mech.	Express Agent.

1895.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
Albro, Lester Franklin Melville Station, Newport.	Agr.	Professional Singer.
Burdick, Howland Kingston.	Agr.	Farm Superintendent, R. I. C. A. & M. A.
Clarke, Charles Sherman Jamestown.	Mech.	Marine Engineer.
Eldred, Mabel DeWitt Kingston.		Instructor in Drawing, R. I. C. A. & M. A.
Hammond, John Edward Jamestown.	Agr.	Farmer.
Oatley, Lincoln Nathan Wakefield.	Mech.	Contractor and Builder.
Scott, Arthur Curtis Ph. D., Univ. of Wisconsin, 1902. Austin, Texas.	Mech.	Professor of Electrical Engineering, Univ. of Texas.
Tefft, Jesse Cottrell Jamestown.	Mech.	Purser, Newport and Jamestown Ferryboat Co.
Winsor, Byron Edgar Coventry.	Mech.	Poultryman.

1896.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
Brown, May (Mrs. Charles A. White). Narragansett Pier.		At home.
Greenman, Adelaide Maria (Mrs. R. Wallace Peckham) Melville Station, Newport.		At home.
Kenyon, Albert Louis 210 Rochambeau Ave., Providence.	Mech.	Printer, Silver Spring Bleaching and Dyeing Co.
Moore, Nathan Lewis Cass Oneco, Florida.	Agr.	Fruit-Grower, with Royal Palm Nurseries.
Tabor, Edgar Francis 69 Doyle Ave., Providence.	Mech.	Calico Printer, Silver Spring Bleaching and Dyeing Co.
Williams, James Emerson Summit.	Agr.	Grain Dealer and Teacher.

1897.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
Carmichael, Welcome Sands Shannock.	Sci.	In Treasurer's Office, Atlantic Mills, Providence.
Case, Herbert Edwards Brown Ph. B., Brown University, 1900. Graduate, Hartford Theological Seminary, 1904.	Mech.	Missionary, Island of Guam, U. S. A.
Grinnell, Archie Franklin 85 Ninth St., Providence.	Mech.	Draughtsman, Brown and Sharpe Mfg. Co.
Hanson, Gertrude Maie Peace Dale.	Sci.	At home.
Hoxsie, Bessie Bailey (Mrs. E. F. Rueckert) 98 Melrose St., Providence.	Sci.	At home.
Kenyon, Albert Prentice 10 West St., Westerly.	Mech.	Bookkeeper, Maxson & Co., Westerly.
Kenyon, Charles Franklin Shannock.	Mech.	With Geneva Woolen Mill, Providence.
Larkin, Jessie Louise 98 Beach St., Westerly.	Sci.	Stenographer.
Marsland, Louis Herbert 1234 North 41st St., Philadelphia, Pa.	Mech.	Assistant Engineer, Phila. Rapid Transit Co.
Tefft, Eliza Alice 16 Rocket St., Westerly.	Sci.	Teacher, Niantic.
Thomas, Irving Allenton.	Mech.	Designer of Patterns.

1898.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
Arnold, Sarah Estelle (Mrs. R. O. Brooks) 176 Franklin St., New York City.	Sci.	At home.
Barber, George Washington East Greenwich.	Agr.	Agent, Prudential Life Insurance Company.
Cargill, Edna Maria 255 Main St., Pawtucket.	Sci.	Stenographer, Pawtucket Institution for Savings.
Case, John Peter 26 Cortland St., New York City.	Agr.	With Brown Hoisting Machinery Company.
Clark, William Case Wakefield.	Sci.	Secretary, Sea-View Electric Railroad.
Congdon, Henry Augustus Kingston.	Mech.	Farmer.
Flagg, Martha Rebecca Hardwick, Mass.	Sci.	Student, care of Hamburg-American Line, Berlin, W. Unter den Linden 8, Germany.

NAME AND ADDRESS.	COURSE.	OCCUPATION,
HARLEY, WILLIAM FERGUSON 62 Hillside Avenue, Providence.	Agr.	Salesman, with Messrs. Callender, McAuslan & Troup, Providence.
TURNER, HARRIETTE FLORENCE (MRS. GEO. M. TUCKER) Graduate, Drexel Institute, 1900, Blodgett, Missouri.	Sci.	At home.
WILSON, GRACE ELLEN (MRS. W. F. HARLEY) 62 Hillside Avenue, Providence.	Sci.	At home.

1899.

BOSWORTH, ALFRED WILLSON Geneva, N. Y.	Sci.	Assistant, Research in Dairy Chemistry, N. Y. Agr. Exp. Sta.
BROOKS, RALPH ORDWAY 176 Franklin St., New York City.	Sci.	Director and Chief Chemist, Official Testing Laboratory.
GEORGE, LILLIAN MABELLE A. B., Univ. Ill., 1904. Kingston.	Sci.	Librarian, R. I. C. A. & M. A.
HARVEY, MILDRED WAYNE 14 W. 92nd St., New York City.	Sci.	Private Secretary.
KENYON, BLYDON ELLERY Austin, Texas.	Agr.	Instructor in Electrical Engineering, University of Texas.
KNOWLES, CARROLL 155 Benefit St., Providence.	Mech.	Draughtsman, Brown & Sharpe Mfg. Co.
KNOWLES, HARRY 155 Benefit St., Providence.	Sci.	Reporter, Providence Journal.
LADD, MERRILL AUGUSTUS Schenectady, N. Y.	Mech.	Commercial Representative, General Electric Co.
MORRISON, CLIFFORD BREWSTER 543 Broad St., Providence.	Sci.	Chemist, City Sewerage Dept.
OWEN, WILLIAM FRAZIER Schenectady, N. Y.	Mech.	Engineering Dept., General Electric Co.
PAYNE, EBENEZER M. D., Univ., Michigan, 1904. Great Barrington, Mass.	Sci.	Physician and Surgeon.
PHILLIPS, WALTER CLARKE Ph. B., Brown University, 1902. A. M., Brown University, 1903. 155 Benefit St., Providence.	Mech.	Instructor in English, Brown University.
REYNOLDS, ROBERT SPINK New Haven, Conn.	Mech.	Draughtsman, Bridge Dept., N. Y., N. H. & H. R. R. Co.
RICE, MINNIE ELIZABETH (MRS. ROBERT J. SHERMAN) Lafayette.	Sci.	At home.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
Sherman, Abbie Gertrude (Mrs. Benjamin Barton) 200 Sherburne St., Providence.	Sci.	At home.
Sherman, George Albert West Kingston.	Mech.	Insurance Agent.
Thompson, Sally Rodman (Mrs. Lewis Balch) Kingston.	Sci.	At home.

1900.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
Brightman, Henry Maxson 1409 Majestic Bldg., Detroit, Mich.	Mech.	Michigan Representative, Buffalo Forge & Blower Co.
Cross, Charles Clark North Tarrytown, N. Y.	Mech.	Inspector, with Maxwell-Briscoe Motor Co.
Eldred, John Raleigh Ithaca, N. Y.	Mech.	Instructor, Cornell University.
Fison, Gertrude Sarah 784 Prospect Place, Brooklyn, N. Y.	Sci.	Children's Librarian, Brooklyn Public Library, 234 Albany Ave., Brooklyn.
Fry, John Joseph A. B., Oberlin, 1904, Glenbrook, Conn.	Mech.	Principal, Darien Public School.
Goddard, Edith Campello, Mass.	Sci.	Teacher, High School, Hopedale, Mass.
Kenyon, Amos Langworthy White Plains, N. Y.	Agr.	Dairyman, Gedney Farm.
Munro, Arthur Earle Ph. B., Brown University, 1902. 18 Mitchell St., Providence.	Sci.	Student, Boston University Law School, Boston.
Soule, Ralph Nelson Wickford.	Sci.	Student, 201 E. St. N. W., Washington, D. C.
Steere, Anthony Enoch Barge Canal Office, Waterford, N. Y.	Mech.	Assistant Civil Engineer, Eastern Division Erie Canal.
Stillman, Lenora Estelle 108 W. 115th St., N. Y. City.	Sci.	Teacher.
Tucker, Bertha Douglass Swansea Centre, Mass.	Sci.	Dressmaker.
Wheeler, Charles Noyes Garden Street, Pawtucket.	Sci.	Clerk, Wm. H. Haskell Manufacturing Co.
Wilson, Joseph Robert Belleville.	Mech.	In Woolen Mills, J. P. Campbell.

1901.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
Brayton, Charles Andrew Fiskeville.	Agr.	Farmer.
Briggs, Nellie Albertine 136 Broadway, Providence.	Sci.	Stenographer, R. I. Hospital Trust Co.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
BURGESS, CHARLES STUART 264 Sayles St., Providence.	Mech.	Draughtsman, Brown & Sharpe Mfg. Co.
CLARNER, LOUIS GEORGE KARL, JR. Arnold's Mills.	Sci.	Farmer.
DAWLEY, EDNA ETHEL Kenyon.	Sci.	At home.
DENICO, ARTHUR ALBERTUS Narragansett Pier.	Sci.	Electrician, 209 W. 108th St., N. Y. City.
*JAMES, RUTH HORTENSE (MRS. HERBERT E. ROUSE)	Sci.	
SHERMAN, ANNA BROWN 122 Fountain St., Providence.	Sci.	Stenographer, with Harness & Saddlery Co., Washington St.
SHERMAN, ELIZABETH AGNES 290 South St., Forest Hills, Mass.	Sci.	Stenographer, with White Hall Portland Cement Co.
SMITH, HOWARD DEXTER A. M., Brown University, 1904. Tufts College, Mass.	Sci.	Instructor in Chemistry, Tufts College.
STEERE, ROENA HOXSIE 98 Fifield St., Providence.	Sci.	Stenographer, with Anthony & Cowell Co.
WILBY, JOHN Flat River, Missouri.	Sci.	Supply Clerk, Central Lead Co.

1902.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
CLARKE, LATHAM A. M., Brown University, 1903. Ph. D., Harvard University, 1905. Boylston Hall, Cambridge, Mass.	Chem.	Instructor in Chemistry, Harvard University.
FERRY, OLIVER NEEDHAM 8 Armington Ave., Providence.	Mech.	Draughtsman, D. & W. Fuse Co.
MAXSON, RALPH NELSON Ph. D., Yale University, 1905. Box 346, State College, Pa.	Chem.	Instructor in General Chemistry, State College, Pa.
PITKIN, ROBERT WILLIAM Rockville, Conn., R. F. D. No. 1.	Mech.	Farmer.

1903.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
BARBER, KATE GRACE 123 Huntington St., New Haven, Conn.	Gen. Sci.	Chemist, Conn. Exp. Station.
CONANT, WALTER AIKEN Bonnymeade Farm, Manchester, Me.	Agr.	Sanitary Milk and Cream Co.
GODDARD, WARREN 48 Quincy St., Cambridge, Mass.	Mech.	Student, New Church Theological School, Cambridge, Mass.

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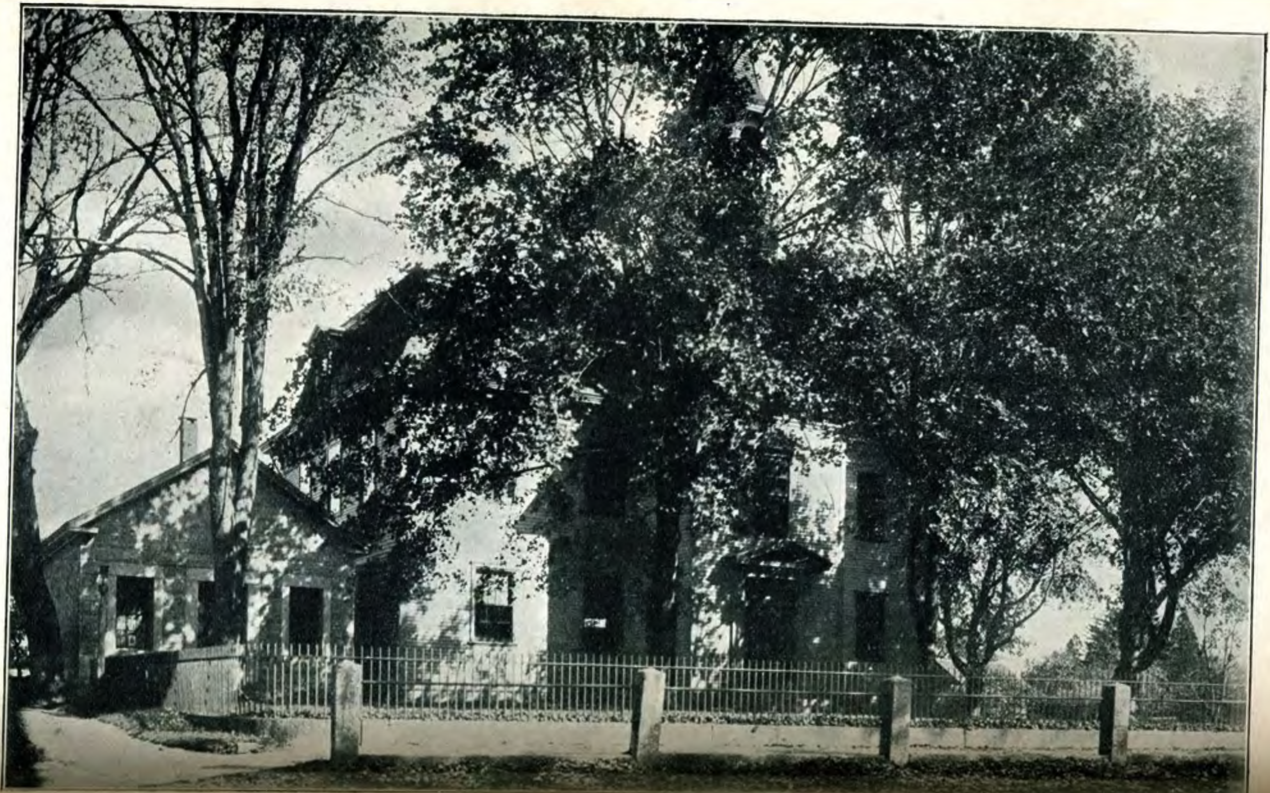
*Deceased.



THE VILLAGE LIBRARY.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
Keefer, Edith Cecelia 832 East Grand Avenue, Des Moines, Iowa.	Biol.	Teacher of Science.
Kent, Raymond Warren A. M., Harvard University, 1904. 12 Holyoke House, Cambridge, Mass.	Chem.	Graduate Student, Harvard University.
Tefft, Ernest Allen Fort Francis, Ontario, Canada.	El. Eng.	Electrician.

1904.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
Ballou, Willard Alger P. O. Box 1019, Arctic.	Biol.	Teacher.
Quinn, Mary Louise Mason City, Iowa.	Biol.	Teacher of Science, High School.
Rodman, Walter Sheldon Kingston.	El. Eng.	Instructor in Physics and Electrical Engineering, R. I. C. A. & M. A.

1905.

NAME AND ADDRESS.	COURSE.	OCCUPATION.
Champlin, Sarah Elizabeth Jackson, Mississippi.	Gen. Sci.	Teacher, Jackson College.
Dow, Victor Wells 2001 G St., Washington, D. C.	High. Eng.	With Office of Good Roads Department of Agriculture.
Gilman, Jean Hampton, Virginia.	High. Eng.	Assistant to Director of Trade School, Hampton Institute.
Harrall, Nellie Armstrong	Gen. Sci.	At home.

INDEX.

PAGE.

- Absences, unexcused ... 25
- Admission ... 19
  - advanced standing ... 21
  - certificate ... 19
  - college ... 19
  - examination ... 20
  - industrial high school ... 70
  - poultry-keeping course ... 38
  - preparatory school ... 67
  - special courses ... 18
- Agricultural experiment station,
  - establishment ... 15
  - publications ... 13
  - staff ... 13
- Agriculture ... 38
  - college course ... 59–64
  - extension work ... 75
  - special students ... 19
- Alumni association ... 79
  - list ... 84
- Anatomy ... 37
- Athletics ... 26
- Biology, animal ... 36
  - plant ... 34
- Board of managers ... 3
- Boarding expenses ... 23
- Botany ... 34
- Bulletins of experiment station ... 13
- Calendar ... 11
- Certificate, admission by ... 19
- Chemistry ... 30
  - course ... 59–64
- Church attendance ... 27
- College, history ... 15
  - location ... 29
  - object ... 17
- Conditions ... 25

PAGE.

- Courses of study ... 17
  - agriculture ... 59–64
  - biology ... 59–64
  - chemistry ... 59–64
  - electrical engineering ... 59–64
  - general science ... 59–64
  - highway engineering ... 59–64
  - mechanical engineering ... 59–64
  - special courses ... 18
- Dairy building ... 16
- Damage fund ... 24
- Degree ... 17
- Departments of instruction ... 30
- Deposit ... 23
- Dormitories ... 23
- Drawing, freehand ... 56
  - mechanical ... 50, 56
- Drill, hall ... 16
  - military ... 57
- Economics, agricultural ... 46
- Electrical engineering ... 52
  - course ... 59–64
- Embryology ... 37
- English ... 44
- Entomology ... 37
- Examinations,
  - conditioned students ... 25
  - dates ... 11
  - entrance ... 11
- Expenses ... 21
- Experiment station, staff ... 13
  - bulletins ... 13
- Extension work ... 75
- Faculty and other officers ... 5
- Forestry ... 43
- French ... 45
- Fees, laboratory, etc ... 22

PAGE.
Furniture........................ 23
Geology........................ 33
German........................ 44
Government..................... 46
Graduation requirements.......... 17
Graduates, list.................... 84
Greenhouse..................... 16
    management................ 43
Highway engineering............. 54
    course....................59–64
Histology, animal................ 37
    plant........................ 35
History......................... 45
Holidays........................ 11
Horticulture..................... 41
Industrial high school............ 18
    admission................... 70
    course...................... 71
    scope....................... 70
Laboratory fees.................. 22
Landscape-gardening............. 42
Languages...................... 43
Latin........................... 45
Lecture association, R. I. C....... 28
Lecturers, non-resident,
    poultry course............... 9
    R. I. C. Assoc............... 28
    Thursday.................. 27
Library......................... 28
Mathematics.................... 47
Mechanical engineering........... 48
    course....................59–64
Military science and tactics........ 57
    requirements................ 57
    uniform..................... 22
Mineralogy...................... 33
Mines, school of.................. 16
Nature guard.................... 76
Physics......................... 33

PAGE.
Physiology...................... 37
Political economy................ 46
Poultry-keeping................. 38
Preparatory school............... 18
    admission................... 67
    course....................68–69
    regulations.................. 69
    scope....................... 67
Psychology...................... 37
Publications, student............. 26
Reading-room................... 28
Registration..................... 25
Regulations, college.............. 25
    preparatory school.......... 69
Religious influences............. 27
    organizations............... 27
Rhetoric........................ 44
Rooms in village................. 23
Self-help....................... 24
Sociology, rural................. 47
Special courses.................. 18
Stenography and typewriting...... 57
Store, college................... 24
Students, boarding.............. 23
    day......................... 23
    list......................... 80
    number..................... 83
Thesis.......................... 26
Tuition......................... 21
Typewriting..................... 57
Uniform........................ 22
Women, expenses............... 21
    opportunities for............ 21
Work, for students.............. 24
Worship, public................. 27
Y. M. C. A..................... 79
Y. W. C. U..................... 79
Zoölogy........................ 36